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THE LARYNGOSCOPE

A MONTHLY JOURNAL
DEVOTED TO DISEASES OF THE

NOSE - THROAT - EAR

FOR GENERAL PRACTITIONERS AND SPECIALISTS.

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FOR CONTENTS SEE NEXT PAGE.

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CONTENTS.

ORIGINAL COMMUNICATIONS.

The Influence of Deafness upon the Development of the Child. By H. A. Alderton, M.D., Brooklyn, N. Y. ... 73

Electrolysis for the Reduction of Spurs of the Nasal Septum. By W. E. Casselberry, M.D., Chicago ... 76

The Use of Menthol in Pharyngitis. By Lewis S. Somers, M.D., Philadelphia, Pa ... 78

The Clinical Investigation of Ear Diseases. Part II. By J. Dundas Grant, M.D., F.R.C.S., London. [ILLUSTRATED] ... 83

CLINICAL REPORTS.

A Fatal Case of Sarcoma of the Nose. By W. Scheppegrell, A. M., M. D. [ILLUSTRATED] ... 95

Fatal Hemorrhage from the Nose and Pharynx from Unusual Cause; with Exhibition of Specimen. By Robert Levy, M.D., Denver, Colorado [ILLUSTRATED] ... 98

Rhinolith, Weighing Seventy-six Grains, in a Child Ten Years of Age. By J. A. Stucky, M.D., Lexington, Ky ... 101

EDITORIAL DEPARTMENT.

EDITORIALS.

Responsibility ... 104

Progression ... 104

Antitoxin versus Conservatism ... 105

Diphtheria and Its Antitoxin ... 105

American Pediatric Society, Collective Report on Diphtheria Antitoxin ... 106

SELECTIONS FROM CURRENT MEDICAL PUBLICATIONS.

RHINOLOGICAL.

The Nose as a Germ-Filter ... 107

An Anatomical Observation ... 107

The Prophylaxis of Nasal Catarrh ... 108

The Etiology and Treatment of Ozena ... 108

Oleo-Stearate of Zinc ... 109

Sarcoma of the Nasal Cavities Benefited by Ligation of both External Carotids ... 109

Myxo-Sarcoma ... 110

The Results of Injections of Erysipelas Toxins upon Malignant Growths ... 111

Total Rhinoplasty and the Operation for "Saddle-Nose" ... 111

Rhinoplasty by the Italian Method ... 112

Osteoplastic Opening of the Frontal Sinus ... 113

LARYNGOLOGICAL.

The Laryngologist and the General Practitioner ... 113

Cough ... 114

Simple Acute Laryngitis and Bronchitis ... 115

Use of Expectorants ... 115

Asthma ... 115

Intermittent Dysphonia Spastica ... 116

Some Observations in Laryngeal Tuberculosis ... 116

The Importance of Diet and Muscular Exercise in the Treatment of Tuberculosis ... 116

Tubercular Infection by Way of the Tonsils ... 117

Guiacol as a Local Anesthetic in Diseases of the Ear, Nose and Throat ... 117

Report of the American Pediatric Society's Collective Investigation into the Use of Antitoxin in the Treatment of Diphtheria in Private Practice (Summary) ... 118

The Fallacy of Antitoxin Treatment as a Cure for Diphtheria ... 120

Diphtheria Antitoxin in Japan ... 124

Nasal Feeding in Diphtheria ... 124

X Rays ... 124

Penetration of a Portion of a Tracheotomy-Canula into the Lung ... 124

Primary Epithelioma of the Epiglottis ... 125

The Operation of Thyrotomy ... 125

One Thousand Goitre Excisions ... 126

OTOLOGICAL.

The Use of Cold Water in Diseases of the Ear ... 128

Oxygen in Aural and Nasal Diseases ... 128

Contribution to the Diagnosis and Treatment of Cholesteatoma, Etc ... 129

Necrosis of the Labyrinth ... 130

Foreign Body in the Eustachian Tube ... 130

Clinical Examination of Deaf Mutes ... 130

Artificial Ear-Drum Membranes ... 131

NEW INSTRUMENTS.

Adenoid Forceps ... 132

A Naso-Manometer ... 131

BOOK REVIEWS.

Acoustic Exercises in Deaf-Mutism, and in the Deafness of the Aged ... 132

Autoscopy of Larynx and Trachea ... 133

Diphtheria and Its Associates ... 133

Books and Pamphlets Received ... 134

NEWS ITEMS.

Professor Klebs ... 135

Death of Dr. Samuel Sexton ... 135

Death of Dr. Pipino ... 135

A Bacteriological Department ... 136

Heidelberg's Chair of Otology ... 136

Western Ophthalmological, Otological, Laryngological and Rhinological Association ... 136

The Mississippi Valley Medical Association ... 136

The American Electro-Therapeutic Association ... 136

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THE

LARYNGOSCOPE.

VOL. I. ST. LOUIS, MO., AUGUST, 1896. No. 2.

ORIGINAL COMMUNICATIONS.

THE INFLUENCE OF DEAFNESS UPON THE DEVELOPMENT OF THE CHILD.*

BY H. A. ALDERTON, M.D., BROOKLYN, N. Y.

Through the eye and the ear the child receives most of its impressions, which are more or less correctly interpreted, according to the degree in which the reasoning powers are developed. It is necessary, in order that the child may not be led to false conclusions, that these impressions be supplemented by instruction from those who are capable. This instruction is mainly communicable through the channel of the organ of hearing. Hence any impairment of hearing must disadvantageously influence the development of the child primarily in two ways: first, through a curtailment of the field of observation; second, through a limitation of the possibility of instruction. These limitations react upon each other, and both adversely influence the child.

The first impression given by a hard-of-hearing child, to those brought in contact with it, is one of inattention. They come to regard the child as being somewhat dull and absent-minded, and imperceptibly get into the habit of speaking sharply and bruskly in order to attract its attention. The child is often reproved for not paying atten-

*Read before the Louisiana State Medical Society, May, 1896.

tion to things it has not heard, or for not doing things it was not aware it had been requested to do. There often grows up a feeling that the child is "putting on" to a certain extent. The child gradually begins to appreciate the feelings it inspires, and this tends still further to limit its receptivity by rendering it sensitive and fearful of ridicule and harshness. The too frequent use of these last breed a carelessness of reproof and of desire to please on the part of the child, who too often feels itself the victim of thoughtless injustice. At school the child, because of inability to hear the teacher and fellow pupils, becomes inattentive in fact, and, losing instruction, does not progress as do the others. Falling behind in the studies and having the appearance of being dull and slow, the teacher's effort to instruct becomes more and more perfunctory and valueless, and, unfortunately, even at times intolerant. The child, losing interest in what is going on around, finds the time hanging heavy on its hands, and is, as a natural consequence, led to expend its mental and physical energies in ways that are forbidden by the discipline of the school. This brings forth reproof and punishment, yet for the same reason the child is tempted again and again to run the chances of incurring these, because of its lack of other interest or occupation.

At play, discovering an inability to take part in the games because of its infirmity, the child gradually loses interest and follows pursuits which do not require the co-operation of others. Lacking thus the incentive to exercise which comes from companionship and the attendant competition and collaboration, malassimilation and malnutrition increasingly make inroads upon the system in general.

At home, where one should naturally suppose that great allowance would be made for this infirmity, we find that it is usually the last place in which it is acknowledged and the place where it is least tolerated. By the time the parents are willing to admit that it is not dullness, but deafness that is the trouble, they have got into the habit of regarding the child as stupid, inattentive and insubordinate. The other children plague and ridicule, and the parents, fatigued by a conscientious effort to discipline and control, usually deprecatingly fall into a half-hearted determination to let things take their own course. Could one but hold up the picture before the eyes of the parents while yet the child was in a condition of possible recovery, how anxious and grateful would they be for any suggestion of means to prevent the many serious results. But, unfortunately, the case progresses so gradually that before they are aware, the damage is done, and all the regrets and recriminations are useless. The habit of the child and of the parent is formed and cannot be amended.

The effect of these various influences upon the development of the child is unfortunate in the extreme. The mind, deprived of its customary cultivation, ceases to expand in proportion to the growth of the individual; the child is "backward." The disposition, constantly disturbed by contempt, ridicule, harshness or over-consideration, becomes uncertain and unreliable, sensitive and uncontrolable. The bodily health, by want of fresh air and exercise, mental worry and disturbance, becomes impaired; the osseous, muscular, vascular, respiratory and nervous systems all feel the effects of malassimilation and malnutrition—especially when the deafness, as it so often is in childhood, is combined with, or due to development of adenoid growths in the naso-pharynx. All these influences, combined, result in producing the narrow-chested, small-boned, feeble-muscled and mentally inactive specimen we so frequently see in the dispensary clinics.

When we come to consider the sphere of prophylaxis in these cases, the criminality of the negligence which allows of such results becomes more and more apparent. It is regarded as no excuse that a law-breaker is ignorant of the existence of the transgressed law. Neither here should we condone the criminal negligence of the parent or the teacher. As things are, it is impossible to affix a penalty; but, for the future, all our efforts should be directed to eliminating the matter from the hands of careless or incompetent instructors. There should be periodical compulsory examinations of school children for the discovery of all such defects as poor eyesight and difficulty of hearing. The parents of children found to be hard of hearing should be immediately notified of the fact and strongly recommended to place them under the care of a competent aurist, either privately or at one of the numerous public institutions. No child need go neglected. As ineffectual treatment is often worse than no treatment, communication should be had with the family physician, recommending that the child be at least examined, if not treated, by a competent specialist.

Coincidently, it should be the duty of the local Board of Education to form a special class in the public schools for the instruction of these handicapped children, by teachers trained especially for this purpose. It is not a matter to be left to private enterprise and charitable institutional methods. The child with impaired faculties is as much entitled to public instruction as the healthy child; the fact that unusual methods and special teachers are required should be no rightful bar to its claim. Let these things come to pass, and the reproach of preventable deafness would pass from us with all its attendant expense to the body politic.

138 Clinton Street.

ELECTROLYSIS FOR THE REDUCTION OF SPURS OF THE NASAL SEPTUM.*

BY W. E. CASSELBERRY, M.D., CHICAGO.

Professor of Laryngology and Rhinology in Northwestern University Medical School (Chicago Medical College); Laryngologist and Rhinologist to St. Luke's Hospital; Laryngologist to Wesley Hospital, Etc.

Electrolysis is a process of chemic disintegration of tissue under the influence of a galvanic electric current, and is not to be confounded with galvano-cauterization. The current strength necessary is from 15 to 40 milliamperes and 8 to 20 volts, which may be supplied by a 20-cell battery; but the author has adapted the Edison electric light circuit to the purpose by means of lamp resistance and the McIntosh current controller. The duration should be from six to eight minutes.

The chief difficulty in the reduction of cartilaginous spurs is to determine exactly when sufficient destruction has been effected, and care, guided by experience, is necessary to prevent perforation of the septum.

A simple deviation or bending of the septum cannot be corrected or straightened by electrolysis, and its use in such a case can only result in perforation. If, in addition to the deviation there is excrescence, the thickening may be reduced or removed by electrolysis, but the deviation will remain.

The pain is trifling, but the sensation tends to cause syncope.

The bipolar method, by which two needles, one representing each pole, are inserted into the spur, is preferable. The author's needles, devised for the purpose, are of irido-platinum, fixed to a convenient handle; but ordinary heavy steel sewing needles may be used.

Sixteen cases are reported, classed in three types, according to the composition and location of the spur and the degree of success attained, from which it is concluded:

While effective in many instances, its scope of application should be limited in accordance with the following principles:

1. Strictly cartilaginous spurs can be thoroughly removed by electrolysis, one, two, or even three operative sittings being required. It

*Abstract of a paper read at the last meeting of the American Medical Association, at Atlanta, Ga., May, 1896. Original paper, in full, in the hands of *Journal of American Medical Association* for publication in due time.

is more tedious and less brilliant than the surgical method, but is not accompanied by liability to hemorrhage. It is not to be indorsed as a universal substitute for the surgical method in even this limited class, but it is a serviceable measure for exceptional individuals of both this type and of type 2, *e. g.*:

(*a*) For cases of minor degree, small spurs of cartilage, or of cartilage and bone, and thickened areas, which seem scarcely deserving of surgical treatment, but which one would like to see resolved for the sake of the additional nasal space and better drainage which would thereby accrue to the patient.

(*b*) For patients of delicate physique and those of highly sensitive and uncontrollable nervous organizations.

(*c*) For "bleeders."

(*d*) For those who decline surgical interference.

2. As demonstrated by the cases reported under type 2, it will not thoroughly remove spurs which belong to that large class of mixed cartilaginous and bony substance, but it will reduce them in size. The majority of such cases would therefore better be treated surgically as being the more thorough method; but instances will arise, as above indicated, in which, the surgical method being inexpedient, benefit may accrue from the use of electrolysis.

3. As demonstrated by the cases reported under type 3, large spurs composed mostly of hard bone cannot be successfully treated by electrolysis, for the reason that needles cannot penetrate properly; and further, it is doubtful if the process is adequate, even if the needles should penetrate, to the resolution of hard and dense bone, *en masse*.

4. Spurs or excrescence, and not deviation of the septum, is the subject of this paper. Electrolysis is powerless to correct deviated septa of any form.

34 Washington St.

THE USE OF MENTHOL IN PHARYNGITIS.

BY LEWIS S. SOMERS, M.D., PHILADELPHIA, PA.

Although menthol has been used for a number of years as a local analgesic and anesthetic in various morbid processes of the pharynx, its value as a stimulant in chronic atrophic pharyngeal inflammations has not been properly appreciated, being mostly used in oily solutions as a protective in acute affections. I believe that menthol is one of the best drugs we have when used as a stimulant in all atrophic throat troubles, excepting, of course, the chronic specific infections, such as syphilis and tuberculosis, and yet it has some value as a palliative agent in these latter affections.

It is claimed that menthol has four properties: analgesic, anesthetic, stimulant and antiseptic. Its antiseptic properties, if such exist, can be dismissed from our consideration in a few words. After using the drug very extensively, I have little confidence in its germ-destroying power in the pharynx, except as the tissues are stimulated to greater activity by local applications of menthol preparations; and in this indirect way it may be a feeble bactericide. In this connection the following combination as an antiseptic-stimulant and protective may be useful:

℞ Oil Scotch pine ..... m. xxx.
Oil eucalyptus ..... ℥j.
Oil cassia ..... m. xxx.
Menthol ..... gr. xx.
Ext. balm gilead, fld ..... q. s. ad ℥iv.
Sig.: Spray on pharynx.

In septic pharyngitis, a twenty per cent. solution of menthol in albolene or glycerine has occasionally proved of some benefit.

As a local anesthetic the drug is of value by its rapid volatilization, producing a very agreeable feeling of coolness in the throat, and is much used in simple acute pharyngitis in combination with rhus glabra and potassium chlorate, in the form of a gargle; or, as used by McBride,* by local application of a five per cent. solution in olive oil. Although far inferior to cocaine in its anesthetic properties, it does not

*McBride, Diseases of Nose, Throat and Ear.

secondarily cause relaxation of the peripheral arterioles as does cocaine, and also has the advantage of not possessing poisonous properties when absorbed into the system. Dr. S. A. Russell* claims that, when used in from ten to fifty per cent. ætherial solution, it will control superficial inflammations. I have never made use of it for this purpose except locally in the pharynx, and certainly very favorable results are obtained when the drug is used in this manner. In conjunction with ether† fifteen parts and chloroform ten parts, menthol is of value either as a spray or swab in acute pharyngitis. One of the best combinations to be used as a spray in the simple acute form of the disease, is the following:

℞ Cocaine ..... grs. viij.
Oil cassia ..... m. xxx.
Menthol,
Gum camphor ..... āā ʒj.
Albolene ..... q. s. ad ʒiv.

In chronic atrophic pharyngitis, menthol is undoubtedly one of the best drugs we possess to combat the irritation and dryness so often complained of by our throat patients. Speaking now of its anesthetic properties only, I use it as a routine practice in all cases where the patient complains especially of faucial dryness. When dissolved in albolene, or any similar oily preparation, the drug can be applied locally to the pharynx, the strength of the solution depending upon the amount of the anesthetic power we wish to exert. I usually use, in a simple uncombined atrophic pharyngitis, a ten per cent. solution, but have frequently applied from twenty to forty per cent. solutions of the drug in old, long-standing cases. Menthol is of more or less value in chronic ulcerated sore throat, where the posterior pharyngeal wall is atrophied and necrosis of the epithelium has taken place, causing the formation of ulcers. In these cases relief from the pain may be obtained by frequent local applications of a twenty per cent. oily solution of the drug, or by the use of a spray composed of:

℞ Menthol ..... grs. xxx.
Gum camphor ..... ʒj.
Chloral hydrate ..... grs. xxx.
Acid carbolic ..... m. xxx.
Liq. vaseline ..... q s. ad ʒiv.

In hypertrophy of the mass of lymphatic tissue at the base of the tongue (lingual tonsil), when the patient complains of a sense of a foreign body in the throat, a five per cent. solution will frequently palliate this symptom, but of course has no value as a curative agent.

*Russell, *Medical Record*, November, 1895.

†Burnett System, Nose, Throat and Ear.

In the ordinary hypertrophic form of faucial inflammation, I have found the drug of little value, although it is occasionally indicated to relieve irritation in those cases, where fibrous tissue forms between the follicles on the posterior pharyngeal wall and causes a feeling of dryness and irritation, from compression of the superficial blood-vessels and glands, with resulting diminished mucous secretion in the parts. In these cases the drug is best used in the form of a twenty per cent. solution in olive oil, applied directly to the engorged tissues; or pastilles may be made, each containing a quarter of a grain of menthol, which the patient may dissolve in his mouth.

Frequently in hypertrophic pharyngitis the mucous membrane, on the slightest exposure to atmospheric changes, becomes intensely inflamed; when this occurs, the following formula, as recommended by Starr,* is of value:

℞ Oil pini canadensis ..... m. v.
Oil eucalypti,
Oil gaultheria ..... āā m. ij.
Thymol ..... gr. ss.
Menthol ..... gr. j.
Vaseline ..... q. s. ad ℥j.
Sig.: Spray on pharynx.

For its combined analgesic and anesthetic properties, menthol has been used in a number of pharyngeal affections, but especially in tuberculosis, herpes and erysipelas. With the first two of these diseases a strong solution is necessary, from fifteen to twenty-five per cent., and when the fauces are the seat of an erysipelatous inflammation, a four per cent. solution of cocaine added to a menthol solution of about the same strength will greatly relieve the intense pain when sprayed over the affected parts. The anesthetic and analgesic properties of menthol are so intimately blended, that for all practical purposes the use of the drug, as described above, will cover all the ground required; but there is one condition of the pharynx where the drug can be applied solely for its analgesic power, and that is in that protean manifestation of nerve force—parasthesia pharyngis. This condition, fortunately, is not very common, and when present, is generally due to some general disorder extrinsic to the pharynx. In a small number of cases the painful or perverted sensation is due to pathological alterations in the pharyngeal structures, and in these cases menthol is usually of some value. The strength of the solution used must depend entirely upon the personal equation of the case under treatment. It is useless to commence treatment with less that a ten

*Starr, American Text Book of Diseases of Children.

per cent. solution locally applied to the sensitive portions of the pharyngeal mucous membrane, and in the more marked cases of parasthesia, the applications should be made every day; or if this is not possible, the patient may use lozenges, each containing from one-fourth to one grain of menthol.

More or less allied to parasthesia pharyngis are the neuralgic affections of the throat, coming on without appreciable cause, without evidence of inflammation or any objective symptoms. In this class of nervous manifestations McBride recommends menthol in strong solutions. I have never seen a pure case of pharyngeal neuralgia, that is without some evidence of faucial disease; but the disorder occasionally occurs in pharyngitis sicca, and then menthol is the only drug with which I have had any success.

In my experience with menthol its power as a stimulant to diseased pharyngeal tissues has recommended it to me more than any other property it possesses. When used in atrophy or sclerosis of the mucous membrane, it is the drug *par excellence* in the armamentarium of the pharyngologist. Rarely failing to produce good results when used properly, it has in my hands been productive of much good for the relief of the dryness and irritation constituting the most marked symptoms in pharyngitis sicca. In all forms of chronic pharyngitis, specific or otherwise, where a stimulant is required, I can recommend menthol as superior to silver, carbolic acid, copper, or any of the host of unpleasant, irritating stimulants that are used.

When making local applications to the pharyngeal mucous membrane we must take into consideration, as far as is consistent with efficient treatment, the feelings of our patient. I have never yet seen a case that did not, more or less, object to the taste of carbolic acid when locally applied; and the same can be said, although in a less degree, when nitrate of silver is used. Let me illustrate by a case in point: Mrs. J., age thirty-two years, came to my office complaining of intense dryness and a feeling as if a foreign body was lodged in the throat. She had been receiving local applications of carbolic acid to the pharynx several times a week for six months, with but temporary relief, which ceased at the expiration of the treatment. In addition to this the carbolic acid caused intense nausea after each application, lasting for several hours. Visual examination showed the mucous membrane of the pharynx to be the seat of marked atrophy, absolutely devoid of secretion and with an irregular, glazed surface. The throat was sprayed three times a week with an ordinary alkaline, antiseptic solution, and a five per cent. solution of menthol was freely painted over the diseased tissues. The strength of the menthol solu-

tion was gradually increased, until, in a few weeks, I was using a twenty per cent. solution, with gradual diminution of the faucial dryness, and after a few applications the irritation producing the foreign body sensation entirely disappeared. The duration of the treatment in this case covered a period of about two months, when the patient considered herself well and has had no pharyngeal disorder since, although it has been two years since she received the last treatment.

In cases similar to the one just related, the following alterative-stimulant may be used when there is an increase of connective tissue with atrophy of the follicles and mucous glands:

℞ Iodine crystals ..... gr. xxx.
Menthol,
Gum camphor ..... āā ʒj.
Oil tar ..... m. xxx.
Liq. vaseline ..... q. s. ad ʒiv.
Sig.: Apply locally to pharynx.

I have endeavored in this paper to point out the general indications for the use of menthol in the various forms of pharyngitis. The drug is not a specific, but it undoubtedly occupies a place in the rational treatment of pharyngeal affections, and if properly used, especially for its stimulating effect, will be productive of good results.

3553 North Broad Street.

THE CLINICAL INVESTIGATION OF EAR DISEASES.

BY J. DUNDAS GRANT, M.D., F.R.C.S., LONDON.

Senior Surgeon Central London Throat and Ear Hospital.

PART II.

Physical Examination of the Ear.

Inspection of the Ear is most conveniently accomplished under the light reflected from a concave mirror attached to the observer's head by a spectacle frame or head band, and having an aperture in its centre opposite the observer's right eye, the source of light being either sunlight or an artificial light placed on the right hand side.

THE AURICLE

may present congenital *malformations* in the way of *deformities, fistulæ, imperfect development, etc.* In case of imperfect formation, hemiatrophy of the face and lower jaw should be looked for as indicating defective development of the structures originating in or about the cartilage of Meckel. Peculiarity in shape will often be noticed.

Acquired abnormalities may show themselves by changes in:

Color.—Skin diseases of various kinds.

Size.—*Hematoma*, a general swelling of the auricle without inflammatory disturbance, often traumatic. *Perichrondritis*, an inflammatory swelling preceded by acute inflammation in the external meatus. *New growths*, sebaceous tumors, warts, sarcoma, etc.

Surface.—*Ulcerations*, as from lupus, syphilis, epithelioma, Raynaud's disease, noma, etc.

Position.—Projection outwards, or outwards and downwards, from the side of the head, as in peri-auricular subperiosteal abscess.

THE EXTERNAL MEATUS

has to be inspected without a speculum before any attempt is made to introduce such an instrument, because if the meatus is the seat of an obstruction, and especially of a furuncle, the introduction of an instrument causes an amount of pain which is quite unjustifiable.

To examine the Meatus without a Speculum the auricle must be

drawn upwards and backwards with the thumb and finger of one hand, while the tragus is held forwards with the other by means of the thumb, a probe, or a blunt hook. In very young children, on the other hand, the auricle must be drawn downwards and backwards.

To examine the Meatus with a Speculum the auricle should be drawn upwards and backwards with the middle and ring finger of the left hand, while the speculum is insinuated with the right hand and held in position with the thumb and index finger of the left. Two points to be borne in mind are, the *convexity of the floor*, and the forward and inward direction of the meatus causing *conspicuousness of the posterior wall*. The former is especially important in connection with the employment of instruments, as a thin film of cerumen on the floor may look like a solid ball, or a superficial redness of the skin may simulate an abscess, and incautious instrumental procedure might have most unfortunate results.

The meatus may be the seat of *complete obstruction*, as from congenital malformation, inflammatory swelling and formation of a diaphragm; from increased formation and retention of cerumen or epidermic scales; from polypi, granulations, or bony outgrowths, or from the presence of foreign bodies. It may be filled with pus or blood.

Partial obstruction may be of the nature of *general narrowing or stenosis* from skin-disease or general inflammation, or from bony outgrowth (hyperostosis), or of *circumscribed narrowing* from furuncle or the protrusion of a mastoid abscess (N.B., the anterior boundary of the mastoid cells and antrum forms the posterior wall of the meatus), periostitis, flakes of cerumen, granulations, small polypi, exostoses, etc. The outer part may be *collapsed* from senile changes in the lower jaw, the aperture taking a slitlike form.

Figure 5.

The nature and site of growth of some of these obstructions can only be made out by careful use of the *probe* (Fig. 5): a fine silver instrument, so curved that the hand holding it like a pencil may not obscure the view, is desirable. In its use, it is important to remember that the *length of the meatus*, from the posterior margin of the external orifice to the membrane, averages 24 mm., nearly 1 inch. By its means the presence of caries, necrosis, fistulæ, and tender spots may be detected.

Removable bodies may have to be expelled by means of the *syringe*,

directed along the roof of the meatus, straightened as already described, or of a fine *hoe* (Fig. 6), or of delicate *forceps*.

Figure 6.

THE MEMBRANA TYMPANI

should, under normal circumstances, be now visible, and answer to the following description: The normal membrane is somewhat oval, measuring 9 mm. ($\frac{9}{25}$ inch) in its longest diameter, of pearly-gray tint, set in a bony frame discernible all round, except at the upper part, where there is a notch — the notch of Rivinus. The anatomical features of present clinical interest are indicated in the accompanying diagram (Fig. 7).

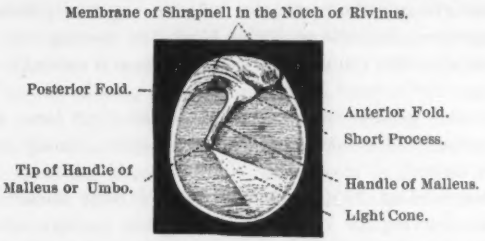

Figure 7. Semi-diagrammatic view of the Tympanic Membrane.

It will be seen that the handle of the malleus runs downwards and backwards to the centre of the membrane, and that at its upper part is a very conspicuous projection, the *short process*—a most important landmark. Forwards and backwards from a little above the process run the anterior and posterior folds which separate the small upper flaccid portion of the membrane—membrane of Shrapnell, or *membrana flaccida*—from the main portion of the membrane—*membrana tensa*. From the tip of the malleus runs downwards and forwards a triangular shiny spot—the *light cone*. It will be remembered that the membrane is placed obliquely across the meatus, so that if it were perfectly flat it would reflect all light thrown upon it on to the anterior wall and floor of the meatus, and none directly back to the observer's eye. It is not perfectly flat, but drawn inwards at the umbo by the tensor tympani, so that a triangular portion at the lower and anterior part is at right angles to the line of sight, and therefore reflects the light directly back. This part therefore appears distinctly luminous, and constitutes the light-cone. It is an important rule that *any point*

which appears brightly illuminated is at right angles to the line of sight.

The Membrane in Disease may vary as follows:

Color.—It may present *general dull redness* in extreme congestion, especially when combined with inflammation of the external ear; or it may be *congested round its margins and along the handle* of the malleus, as in the lesser forms of external or middle ear catarrh; or it may present a *bright coppery lustre* when a congested condition of the tympanic mucosa is seen through a still transparent membrane—the earliest appearance of acute catarrh of the middle ear. It may be *raw and granular* after the removal of a desquamating layer of epidermis. A limited area of *redness in postero-superior quadrant* is not infrequent in disease focussed in the neighborhood of the tympanum and mastoid antrum. Circumscribed *yellow or white patches* of degeneration (fibrous or calcareous) usually indicate previous inflammation of the membrane. A single or double *black line* crossing the membrane horizontally is often visible when the tympanum is partially filled with fluid.

Lustre.—A general dullness, with loss of light-cone, may result from superficial inflammation of the outer layer—cloudy swelling of the outer layer.

Indistinctness of Features results from further thickening of the outer layer burying the visible portions of the malleus, which lies in the middle layer of the membrane beneath the outer one.

Surface.—The surface may be irregular from the projection of granulations, polypi, vesicles, interstitial abscesses, pouches, herniæ of the mucus layer through the middle and outer ones. It may be wrinkled, owing to abnormal thinness, either from atrophy or from the presence of large loose cicatrices like gold-beaters' skin (*vide* "Suction-Speculum").

Indrawing or Retraction may be general or circumscribed. *General* retraction is usually the result of non-ventilation of the tympanum and absorption of the contained air. This is generally caused by obstruction of the Eustachian tube from catarrhal or other changes. The appearance of the retracted membrane is very characteristic. The yielding parts are depressed, and the unyielding parts are thrown into abnormal relief, while other parts are foreshortened.

The main part of the membrane is much depressed, as is seen most distinctly in the portion in front of the malleus where the shadow is very deep. The anterior edge of the manubrium shows up with abnormal sharpness; the short process sticks out like a miniature hat peg, and the manubrium itself appears shorter and more horizontal than in

the normal condition. The anterior and posterior folds are unduly prominent, and in the postero-superior quadrant the membrane is often so closely opposed to the incus and stapes that the descending limb of the former and the posterior crus and muscle of the latter are quite easily distinguishable. The light-cone is more diffuse and less distinct toward the periphery of the membrane than usual.

Circumscribed Retraction is the result of the indrawing of *thin cicatrices* after the healing of perforations extending over small or large areas of the membrane, but usually having definite margins, or of *atrophic* areas with ill-defined margins resulting from dry chronic inflammation. The former may be loose or fixed, and are apt to be mistaken for existent perforations (*vide* "Suction-Speculum" and "Inflation of Tympanum"). This often occurs in the postero-superior quadrant just below the posterior fold. *Bulging* without material alteration in color can generally be recognized after careful study of the lights and shadows, but without this the distinction from retraction under uniocular inspection is not always easy. In case of distension with pus, the bulging parts behind and in front of the manubrium leave that bone in the bottom of a groove, and present a yellowish tint at their most prominent parts. The most characteristic appearance in acute or purulent inflammation of the middle ear is that of a bright-red globular mass, more or less beset with small flakes of desquamated epithelium, completely filling the fundus of a narrowed meatus, and (after perforation) swamped in muco-pus. It usually consists for the most part of the postero-superior quadrant of the membrane, and occasionally of Shrapnell's membrane only, and as the swelling subsides it resembles a large granulation or small polypus.

Perforations may vary in size from a pinhole to absence of almost the whole membrane.

Figure 8.
Small Perforation.

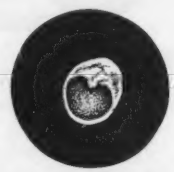

Figure 9.
Large Reniform Perforation.

Figure 10.
Absence of almost the whole Membrane.

The above are typical appearances of *perforations in the membrana tensa*. The character of the margin must be noted—whether red and raw,

as in recent active perforations with possibility of healing and closing, or *white* and cicatricial, as in permanent ones, or "terraced" inwards, a rarely observable indication of a perforation commencing externally. The perforation must be distinguished from the margins of sunken cicatrices—the mouths of cicatricial pockets—by the suction-speculum and inflator (which see). The objects on the inner wall of the tympanum may be exposed, such as the promontory with its ramifying vessels, the descending process of the incus and the stapes, and occasionally the niche in which lies the fenestra rotunda. Often the mucous membrane of the inner wall is swollen, and projects outwards so much as to simulate a polypus, or a granulating membrani tympani, from which it has to be distinguished by means of the probe. The presence of white shreds protruding from the upper part of the perforation, and repeatedly re-forming after removal, indicates a desquamating process in the upper part of the tympanum, and the probable development of "cholesteatoma" in some of the accessory spaces.

Perforations in Shrapnell's Membrane, indicating disease in the "attic," are not infrequent, but are apt to be overlooked, and are often covered by a crust of inspissated secretion. Through them may often be seen masses of desquamated epithelium, and sometimes a portion of the head and neck of the malleus, which may be carious. They often co-exist with a permanent perforation of the membrana tensa.

Figure 11. Siegel's Speculum.

The *Suction-Speculum* (*Siégel's Speculum*) consists of an aural speculum widened out at its large end and fitted with a plane, or magnifying, glass. An india-rubber tube is attached to its side, and when the instrument is introduced tightly into the meatus the air can be sucked out through the tube by means of the mouth or a thick air-ball. The latter is preferable, but it must be of considerable strength (Fig. 11). By its means the *mobility of the malleus* and the degree of

relaxation of the membrane can be distinguished. The mouths of sunken *cicatricial pouches* can be diagnosed from *open perforations*, and *adhesions* of the membrane or of sunken cicatrices or other parts to the inner wall of the tympanum can be made out. Collections of *pus in accessory cavities* may often be detected and emptied by means of this instrument. Its *special diagnostic use* is in the detection of impaired mobility of the ossicles, and of relaxation of the membrane.

THE PERIOTIC REGION

must be examined. The *supra-auricular* segment is often the seat of subperiosteal abscesses, both in the adult and in the child. In the child, pus may find its way out through the still patent squamosa-mastoid suture, and burrow upwards. (It is interesting to note Gruber's rule that counter-openings in case of abscesses at or above the level of the upper-third of the auricle should be made in the roof of the meatus.)

The *præ-auricular* or *parotid* region may be the seat of lymph-adenitis, parotitis, or pus-burrowing.

The *infra-auricular* region is habitually the seat of swelling and tenderness from *lymphatic inflammation* in acute inflammatory affections of the external ear. In disease of the internal jugular vein (from phlebitis of the lateral sinus) a swelling may be found running from this region down the side of the neck. Burrowing of pus from an abscess in the mastoid process having found vent on the inner aspect (Bezold), may also cause a swelling in the lateral cervical region—one form of "cervical cellulitis" comparable to a form of "retropharyngeal abscess" arising from the same cause. Pressure on such a swelling after opening of the mastoid would cause pus to well up.

The *post-auricular* or the *mastoid* region must in all cases, especially those characterized by pain or suppuration, be examined with care. It may be red, swollen, tender, painful, or the seat of sinuses or cicatrices. It must be noted whether the *swelling* is *circumscribed* and mobile, as in case of an inflamed gland, diffused or *shelving*, as in periosteal abscess, etc. The *point of greatest tenderness*, as *on* or *behind* the process, is important, as it will be remembered that in disease of the lateral sinus there may be tenderness behind and particularly at the seat of the mastoid foramen. *Intense pain*, deeply seated in the mastoid region, possibly without superficial evidence of inflammation, is present in cases of abscess or cholesteatoma in the antrum or mastoid cells. Its clinical significance depends upon its association with acute or else long-standing otitis, and with severe constitutional disturbances, the inflammation in acute cases being usually limited to the cervical cells (Politzer), while in the chronic ones the antrum is

almost universally involved. It is often, however, only after opening the mastoid process that the exact nature and limits of the inflammation can be defined, or further evidence of a *subdural abscess* of *other intra-cranial* disease may be forthcoming, and call for more extensive operative interference. Severe attacks of pain in the mastoid process, without inflammatory constitutional disturbance, constitute *mastoid neuralgia*, which, when occurring in the subjects of former local inflammation, often indicate chronic ostitis curable by the chiseling away of a superficial layer of bone. *Fistulæ and sinuses* require special attention. Those of *congenital* origin are generally in the præ-auricular region, and associated with other malformations. *Acquired* ones are mostly in the post-auricular area, and may lead to the remains of a superficial (glandular) abscess, to the periosteum, to the bone below the periosteum, or to the interior of the petrous bone. They may run forwards simply to the meatus, but they sometimes lead into the groove for the lateral sinus or the cranial cavity. Pouting granulations at the orifice of a fistula sometimes arise from the dura mater. (The probing and syringing of fistulæ, especially if at an unusual distance behind the auricle, should not be practiced without the greatest caution.)

THE VENTILATING APPARATUS,

namely, *The Eustachian Tubes and their Approaches*, should now be examined.

THE NOSE, PHARYNX AND NASO-PHARYNX

call for detailed investigation. The following *special points* may be here noted:

(1) In the examination of the fauces the *activity of the palatial muscles* (which are also tubal muscles) during phonation.

(2) The appearance of the naso-pharynx and Eustachian tubes by *posterior rhinoscopy*, a proceeding which we find most readily carried out early in the interview and before much manipulation has been practiced.

(3) The *patency of each nostril* in relation to respiration, ventilation, and Eustachian catheterization.

THE EUSTACHIAN TUBE

may be tested as regards its patency by means of *inflation* by Valsalva's method, Politzer's method (or one of its modifications), or the Eustachian catheter, while the examiner listens with an india-rubber diagnostic tube, the ivory extremities of which are inserted into his own and the patient's ear. In rare, doubtful instances the skilled manipulator may use *Eustachian bougies;* but in view of the possibil-

ity of mistaking "kinks" for strictures, their diagnostic value is very slight, although their judicious therapeutic employment is often indispensable.

Valsalva's Method.—The patient pinches both nostrils firmly and makes an expiration as if to blow the nose, but without letting the air issue from the nostrils. The air is thus driven up the Eustachian tube, and if it is heard to enter the tympanum — normally a sound like "pick" is heard—it may be assumed that the tubes are freely open. During this process it is advisable for the patient to open his mouth widely.

Politzer's Method.—The patient holds a little water in his mouth, and the observer places the tip of a "Politzer Bag" — a six-ounce india-rubber enema bottle with a conveniently adapted tip—in the nostril. The patient swallows at the word of command, and the surgeon then compresses the bag firmly while closing the other nostril. During deglutition the palate is raised, the Eustachian tube is opened, and the air has no outlet from the nose except through that tube. Loewenberg advises that the compression should be practiced at the moment when the larynx rises in swallowing.

The Writer's Modification of Politzer's Method consists in making the patient blow vigorously with distended cheeks through a very narrow-bored tube while inflation is practiced. This, if not so widely applicable as Politzer's, is well worthy of preliminary trial in every case, as being in many respects easier and more pleasant.

The *Eustachian catheter* in its most practical form is a metal or vulcanite tube, about five inches in length, presenting the following well-known appearance: Its last inch is gently curved till the point is directed at an angle of about 45 degrees to the shank. The point must be well rounded and free from all sharp edges. The outer end is funnel-shaped, so as to receive the top of a small india-rubber bottle, and it has on it a ring pointing in the same direction as the tip of the catheter. In use it is passed along the floor of the nose into the naso-pharynx, and the point is turned outwards and upwards in the the direction of the external meatus, the orifice of which is nearly on a level with that of the Eustachian tube. When the point is just inside the orifice of the tube, air is blown in by means of an india-rubber bottle, and its entrance into the tympanum is listened for by means of a diagnostic tube as before.

Several *important points* are to be kept in mind:

(1) A *nasal speculum* should invariably be used on the first occasion, especially by inexperienced operators, and the catheter should be introduced through this under good illumination. In nervous sub-

jects, or in case of rhinitis, cocaine should be previously applied inside the nose. The tip of the nose should be lifted up, and the head should be held in such a position that the *inferior meatus is horizontal.*

(2) Using the *palate as a landmark*, the catheter should be passed into the pharynx with the point downwards. The patient is then ordered to breathe through the nose, so that the soft palate may droop. The posterior margin of the hard palate is then very distinct, and the hook of the catheter is drawn forward so as to hug it. The beak has now only to be turned outwards and upwards, and in most cases may be introduced into the mouth of the Eustachian tube, especially if the patient performs at the same time the movement of swallowing.

(3) Using *the posterior lip of the Eustachian Tube as a landmark*, the catheter is pushed right back to the posterior wall of the pharynx, its beak is then turned outwards and slightly upwards into Rosenmuller's fossa, the hollow behind the Eustachian tube. It is then pulled forwards till it is felt to pass over the more or less pronounced posterior lip of the tube. If a vulcanite instrument is used, there is sufficient "give" to make the proceeding practically painless, but with a metal catheter it is advisable to turn the beak slightly downwards as soon as the lip is felt, so as to "round" the swelling rather than drag the point of the instrument over it.

(4) Using *the septum as a landmark*, the beak of the catheter in the pharynx is turned inwards and hooked on to the back of the septum, being pulled forward so as to press it. The instrument is held at this depth and then rotated so that the tip traverses nearly half a circle in the naso-pharynx, and comes to point outwards towards the auditory meatus.

(5) *When one nostril is very much obstructed*, the other is usually sufficiently patent to permit of the passage of a catheter with a very long beak, bent so as to point at right angles to the shank of the catheter. It is surprising how easy it is to direct this towards the tube of the obstructed side and to inflate the tympanum through it.

(6) *In cases of cleft palate* it is easier to pass the catheter through the mouth. Mr. Cresswell Baber has recommended the use of specially bent Eustachian catheters by this passage, even in cases of normal palate.

THE POINTS TO BE NOTED IN CONNECTION WITH INFLATION

are: (1) The degree of patency of the Eustachian tube; and (2) the effect of inflation on the hearing power and symptoms.

(1) *The patency of the Eustachian tube* is judged of by the readiness with which the air is observed to enter the tympanum. This presupposes some familiarity with the sounds produced by the process *in*

the normal ear, when the air enters the tympanum at once with a full stream and forces out the membrane with an easily audible "pick." Patency is then normal, or ±. When the *tube is narrowed* the air passes with difficulty, there is a murmur of abnormally high-pitch, and it is only after a little time that it is heard to enter the tympanum. Patency is then diminished, or —. When the *tube is impervious* "patency" is absent, or $-\infty$.

(2) *The effect on the symptoms*, especially *hearing*, *tinnitus*, or *pain*. *Improvement* in general may be noted as present, absent or conspicuous by its opposite, deterioration taking place. Thus: "improvement" +, ±, or —. It is, however, better to note the effect on the chief symptom. Thus the hearing distance for the watch after inflation may be compared with what it was before, the new distance being noted after the observation on patency. Similarly tinnitus, or pain may be diminished —, or increased +, or unchanged ±, or entirely removed $-\infty$.

THE DIAGNOSTIC VALUE OF INFLATION

lies in the comparison of the patency and the effect produced; thus:

Patency much diminished and improvement on inflation very considerable would indicate a narrowing (catarrhal) of the Eustachian tube without significant tympanic disease.

Patency much diminished and improvement on inflation very moderate would indicate simultaneous affection of the tube and tympanum in the more favorable exudative form of chronic catarrh of the middle ear.

Patency normal and improvement on inflation little or none would indicate a primary affection of the tympanum, as in the obstinate dry or sclerotic form of chronic catarrh.

Patency normal and hearing made worse by inflation are found in cases of healthy middle ear, as in pure nerve-deafness.

Immense improvement on inflation followed by speedy or almost immediate return to the previous degree of dullness of hearing is characteristic of relaxation of the membrane.

In cases of perforation of the membrane a distinct hissing or whistling sound is usually heard on auscultation during inflation—the "perforation sound."

The appearance of the membrane is often altered after inflation, an indrawn membrane being forced into its normal position, and a relaxed one bulged out to an abnormal degree. Similarly depressed cicatrices may be driven out more or less completely according as they are free or bound down by adhesions, very much as when the exhausting speculum is employed.

GELLE'S TEST.

Centripetal pressure consists in compressing the air in the meatus by means of a firmly fitting "Politzer-bag," while a vibrating tuning-fork is placed on the vertex. In the normal subject the sound dies away during the compression and returns on its removal. This is believed to indicate that the stapes moves freely in its fenestra, and Gellé's test is "positive" +; otherwise it is "negative" —.

Binaural Synergy.—This test, also introduced by Gellé, is practiced by holding a vibrating tuning-fork opposite the other ear, while compression is exercised as above in the ear under examination. In the normal subject the sound of the tuning-fork becomes faint and inaudible during the compression, but returns on its removal (always assuming that the vibration of the tuning-fork has not diminished below normal audibility). This is ascribed to a synergic contraction of the opposite tensor tympani reflected through an "oto-spinal" centre in the medulla. The results may be readily noted as "positive" or "negative," but the interpretation is much hampered by the obvious sources of confusion arising from possible disease of the middle ear causing immobility of parts, or of the labyrinth of one or other side. In doubtful cases the test should not be omitted.

CLINICAL REPORTS.

A FATAL CASE OF SARCOMA OF THE NOSE.

BY W. SCHEPPEGRELL, A.M., M.D.

Vice-President of the American Laryngological, Rhinological and Otological Society; Chairman of the Section on Otology, Laryngology and Rhinology, Louisiana State Medical Society; Vice-president New Orleans Electric Society; Member of the Société Francaise d'Otologie et de Rhinologie, etc., New Orleans.

Theodore L., age 56, white, applied at the Eye, Ear, Nose and Throat Hospital, May 10, 1893, for an obstruction of the left nostril. The patient stated that for several months past he had felt an irritation in his nose, which he thought was due to "catarrh." An anterior rhinoscopic examination showed the left nostril filled with a granulation-like mass, which bled easily when touched with the probe, the mass being sessile and springing from the quadrangular cartilage; the septum on the right side was also partly covered with a similar mass, although no communication between the two nostrils could be found. By posterior rhinoscopy, the extremities of the turbinals were found somewhat congested, but no part of the neoplasm could be seen. A small part of the tumor was removed by means of the cold-snare, which was followed by considerable hemorrhage.

The microscopic examination, made by Dr. Henry Dickson Bruns, showed that the tumor was a round-cell sarcoma. The patient did not return until a week later, and it was found then that the tumor had grown rapidly and was showing its malignancy. The nostrils were somewhat dilated, and the nasal bones had become softened; the indications for an immediate operation were positive, and it was decided to remove the diseased area by means of a Rouge's or other external operation. The importance of a prompt operation was explained to the patient, who promised to consult his wife and return the next day. The patient was not seen again until September 23 (four and a half months), when his face presented the marked deformity shown in the figure.

He explained his long absence by stating that he and his wife were afraid of any operative procedure, and he had then gone to a "medi-

cal institute" (?), where he had been informed that he was suffering only from "catarrh," and would be "cured" in a few weeks. The weeks had gone into months; and, as he found that instead of getting better he was daily becoming worse, he had decided to return for the operation.

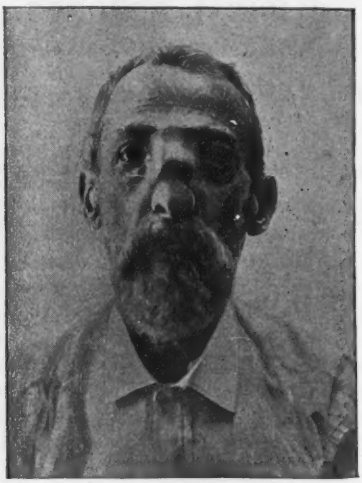

FIGURE 1. Sarcoma of both Nostrils, originating from the Septum of the Nose.

During the four months of his absence, the disease had made marked developments; the forehead and region of the frontal sinus were dilated, showing that this region had become infected, and there was marked exophthalmos. The nasal bones had been absorbed, and this region was covered with a large soft swelling which extended to both sides of the face anteriorly; both nostrils were occluded with the sarcomatous mass, and by the rhinoscopic mirror the neoplasm could be seen in the naso-pharynx. The patient was very feeble and markedly cachectic.

After a consultation of the surgeons of the hospital, to which Dr. Rudolph Matas was invited, it was decided, in view of the condition of the patient and the extent of the disease, that the operation was no longer justifiable.

The patient disappeared from sight; but a year later I heard, through an accident, the conclusion of the history of this unfortunate case. Leaving the hospital, the patient had gone to a woman, who

was known as a "cancer doctor," who had given him a paste which he was directed to apply to the diseased parts of his face and not to remove it for three days. The patient tried to follow the advice, but after two days of excruciating agony he was compelled to remove the paste and with it came all the superficial parts, leaving a large hole in which could be seen the teeth and part of the superior maxilla. On account of the opening through the cheek, the patient could take food only with the greatest difficulty, and he died ten days later from exhaustion.

Sarcoma of the nasal passages is of rare occurrence, and Bosworth was able to collect only 41 cases. As a microscopic examination was not made in all of these cases, it is not certain that this number is correct. The analysis of the reported cases would seem to indicate that about one-half of the cases recovered, although it is probable that the prognosis is not quite so favorable, as the knowledge of the subsequent history of many of these cases is not sufficiently definite to warrant the conclusion that the disease had been radicated.

There is no question, however, as to the importance of prompt surgical interference in these cases; and the above history illustrates how a case which, when first seen, still offers a certain amount of success in treatment, can by delay become so aggravated as to become hopeless from a surgical standpoint.

Medical Building.

FATAL HEMORRHAGE FROM THE NOSE AND PHARYNX FROM UNUSUAL CAUSE; WITH EXHIBITION OF SPECIMEN.*

BY ROBERT LEVY, M.D., DENVER, COLORADO.

Professor of Laryngology and Physiology of Gross Medical College; Laryngologist to St. Luke's, St. Anthony's, and Arapahoe County Hospitals; Fellow of the American Laryngological, Rhinological and Otological Society; President of the Colorado State Medical Society, etc.

The following case illustrates a source of hemorrhage which, so far as the author knows, is in some respects entirely unique in otological and rhinological literature.

H. W. C., aged 24, male, by occupation a miner, was admitted to the Arapahoe County Hospital, May 1, 1896. His family history was negative, his personal history unimportant. At the Cripple Creek fire, April 24, during an explosion, he was struck on the left jaw, causing a severe hemorrhage from the nose. He was carried to the side of a hill where he lay for several hours, during which time the hemorrhage continued. He finally fainted and does not know how long he remained in this condition. Upon admission to the hospital a careful examination revealed no fracture of the jaw, but considerable contusion of the soft parts. His condition rapidly improved without especial treatment, and on May 4 he was discharged at his own request (Dr. A. H. Williams, house surgeon). May 9, he was admitted to St. Luke's Hospital very weak, anemic; lips, conjunctiva and skin blanched. Since leaving Arapahoe County Hospital he had had several serious hemorrhages from the nose and pharynx. His posterior nares contained plugs which had been placed there two days previous to his entrance into St. Luke's Hospital. The plugs were allowed to remain until May 13, when on account of the pain, odor and increased temperature—$102\frac{4}{5}°$—they were removed. He gradually improved, his temperature became normal, appetite returned, he gained in flesh, etc. On May 24 he was allowed to dress and move about. After two days he began complaining of pain in the left ear and progressive deafness. The pain was at first localized to the floor of the meatus, but subsequently spread to the mastoid process and to the area im-

*Read before the Colorado State Medical Society, June, 1896.

mediately in front of the ear. His temperature gradually rose to 102⅕°. He was put to bed and was examined by Dr. J. M. Foster, who found nothing abnormal in the appearance of the meatus, the external auditory canal, or the membrana tympani. Several small hemorrhages from the nose occurred during this time, but were easily controlled by pressure and plugs of cotton in the anterior nares. On June 1, the pain ceased, the temperature fell to 99°, and a small amount of discharge exuded from the ear. At 4 A. M., June 2, while turning in bed, the patient had a severe hemorrhage from the nose and throat (Dr. S. Bell, house surgeon).

I was first notified of the case at this time, and ordered plugging with cotton, saturated in peroxide of hydrogen. Upon my visit to the hospital a few hours later, I found the hemorrhage had ceased, but patient complained of large clots in naso-pharynx, which were continually being swallowed. The patient's appearance was that of one nearly ensanguinated. Absolute quiet was ordered; a nourishing liquid diet; strychnia and iron and saline enemata. For several days the improve- was rapid, but the past history of the case warned us to be extremely cautious in allowing the patient to move about. In spite of the most stringent orders, the patient, who was an unruly one, managed surreptitiously to leave his bed on the morning of June 8th. He walked a distance of fifteen or twenty feet, whereupon a violent hemorrhage took place. He immediately went into collapse, and died the same day at 9:25 p.m.

An autopsy held by Dr. E. R. Axtell. revealed the following:

"No blood in the meningeal vessels; dura mater not adherent; a small long white clot in the superior longitudinal sinus, but no thrombus; in the middle fossa, at the suture of the temporal and sphenoidal bones, posterior to the foraman ovale, there showed through the meninges from above a discolored area the size of half a cent. On reflecting the membrane at this point, there was found a small collection of grayish-brown, purulent disorganized material at the opening of and filling the foramen spinosum, which opening seemed larger than normal and irregular in outline. A probe was introduced and passed forward, downward and to the right, and was felt by the finger in the mouth to touch the upper part of the soft palate."

The course of the probe was evidently through the Eustachian tube, the septum between the foraman spinosum and the Eustachian tube having been destroyed. Further examination revealed the existence of a purulent otitis media. involving to a slight degree the mastoid antrum, the roof of the middle ear, and extending forward to the anterior portion of the petrous bone. Necrosis in this course had taken

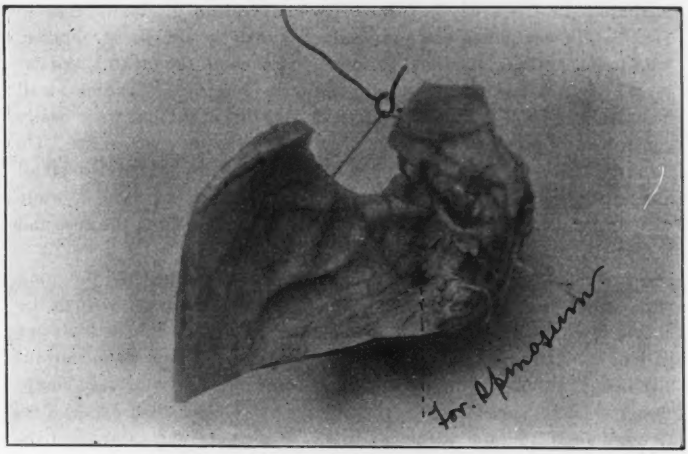

FIGURE 1. Showing foramen spinosum enlarged and of irregular outline, due to necrosis.

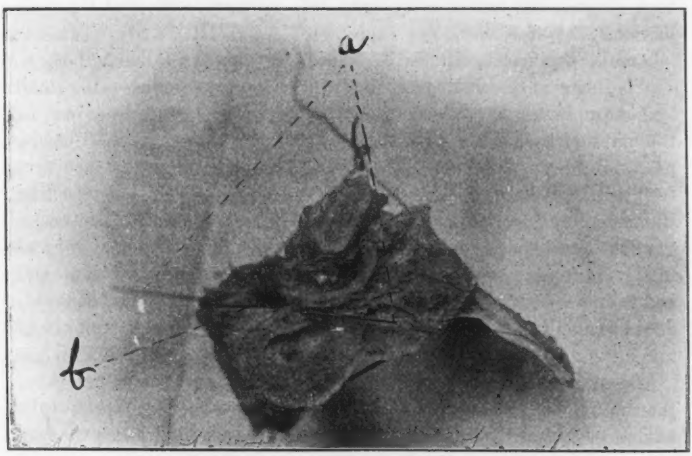

FIGURE 2. Showing penetration from For. spinosum into Eustachian tube. Wire *a* passes through Eustachian tube. Wire *b* passes from For. spinosum into Eustachian tube, crossing wire *a*.

place, the process continuing into the foramen spinosum, and from there into the Eustachian tube. The middle meningeal artery, which passes through the foramen spinosum, had been eroded to such an extent that where the opening, communicating with the Eustachian tube, was discovered, the vessel seemed completely disorganized. The source of the hemorrhage was therefore clearly from the middle meningeal artery through the Eustachian tube into the naso-pharynx. The membrana tympani not having been ruptured, explains why there was no hemorrhage from the external auditory canal.

The accompanying cuts illustrate the necrosis in the Foramen spinosum (Fig. 1), and the relation of the Eustachian tube to the course taken by the necrotic action (Fig. 2).

It is interesting to consider the cause of the suppurative otitis, in view of the traumatism which was associated with violent hemorrhage, and in view of subsequent developments. Whether the disease was of long standing, the final perforation of the artery taking place coincidently with the severe blow, or whether the original hemorrhage was from a different source, the otitis suppurativa being the result of the plugging of the posterior nares, must remain a matter for conjecture.

It is not for the purpose of discussing this interesting question that the above case is here reported, but rather for the purpose of placing upon record a case of extreme rarity.

Fatal hemorrhage from suppurative otitis media, followed by necrosis and perforation of the internal carotid, are not frequent. Politzer, however, has collected nineteen cases. But hemorrhage from the middle meningeal, occurring in the course of otitis suppurativa and in the manner illustrated by this case, must be of the extremest rarity.

RHINOLITH, WEIGHING SEVENTY-SIX GRAINS, IN A CHILD TEN YEARS OF AGE.

BY J. A. STUCKY, M.D., LEXINGTON, KY.

Member of Ky. State Med. Society; Lexington and Lafayette County Med. Society; Central Ky. Med. Society; Ex-President American Rhinological Society; Member of American Medical Association; Fellow of American Laryngological, Rhinological and Otological Society, etc., etc.

H. L. W., æt. 10 (negro), was brought to me in February, 1896, to have some obstruction removed from the left nostril. On tilting the nose upwards with my finger, a large offensive mass was seen, completely blocking up the nasal opening. The eye-lids were swollen, tears flowing down the cheek. The entire left side of the face was extremely sensitive to touch, especially over region of antrum of Highmore. The nostril was sprayed with alkaline antiseptic solution, and a quantity of very offensive pus removed. On using the nasal speculum, a large irregular mass, of grayish-black color, was seen to fill the nostril; neither the anterior nor middle turbinate could be seen or touched with the probe.

A diagnosis of rhinolith, extending into maxillary antrum, was made. The history given by the mother of the child was unsatisfactory. She said the trouble was first noticed in the nose several years ago. A physician was consulted, who told her the child had catarrh; and he gave her a wash which, he said, would cause her to sneeze out the obstruction, and nature would effect a cure. There was no history of the child ever getting a foreign body in the nose. The nostril had been stopped up, and the breath had been very offensive for more than a year. She continued to grow worse, though she had been under treatment of several physicians for more than a year. She complained frequently of pain in left eye and cheek, and both were always swollen when she got up in the morning. The irregular shape and size of the mass rendered its removal through the nostril (notwithstanding its characteristic African shape—large, flat and patulous) impossible, without making an external excision; so I determined to remove it by piecemeal. After thoroughly cocanizing the parts, after several attempts with strong forceps I succeeded in crushing the mass and removing it with hook and nasal forceps. The largest pieces weighed from ten to

sixteen grains each. The weight of all removed, not including that that was blown out and washed out, was seventy-six grains.

There were no marks left of the inferior turbinate; I suppose, as the result of pressure and by suppuration, it had been absorbed. The anterior half of the middle turbinate had sloughed away, the posterior half being in a state of necrosis; this was removed with cutting forceps and cold-snare. The nasal wall of the antrum of Highmore was broken down, and this cavity filled with polypoid granulations. The antrum was thoroughly curretted, with Myles' malleable currettes, of all polypoid tissue, and all evidence of necrosis removed. There was free bleeding, which lasted but a short time and stopped spontaneously. After cleansing the cavities with antiseptic solutions, they were packed with iodoform gauze. The patient was kept under observation for some days. She made a rapid recovery, and required no other treatment than cleansing with spray of alkaline antiseptic. A careful examination of the stone removed gave no evidence of a foreign body as a nucleus, and I conclude this was a typical rhinolith. The child showed no evidence of struma, syphilis or tuberculosis, and aside from the local trouble was in good health.

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EDITORIAL.

RESPONSIBILITY.

Authors alone are responsible for the views expressed in all signed articles. The Editors alone are responsible for all unsigned articles in whatever department they may appear.

PROGRESSION.

At the recent annual meeting of the Maine Medical Association, Dr. E. E. Holt, of Portland, introduced a resolution to the effect, that it be the sense of the Maine Medical Association that five years should be devoted to the practice of medicine, either in general practice, hospital or laboratory work, before a specialty should be practiced. Such sentiments deserve the support of every progressive scientist; it guarantees a raising of the standard, not only of general medical education, but of the individual specialties.

ANTITOXIN VERSUS CONSERVATISM.

The natural accompaniments of a progressive measure have been growing into prominence of late. A vigorous protest against the employment of diphtheria antitoxin is announced from various quarters, and is conducted by some of our older professional confréres who have not been entirely converted to the bacteriological atmosphere of the present day. Some of our contemporaries are publishing interesting articles on the antitoxin treatment, which are, however, for the greater part, the reports of single fatal cases, or failures following the use of antitoxin.

We must admit that the various antitoxins and serums, which have been introduced in such quick succession, many with indifferent therapeutic results, have contributed much to shake the faith of some of our conservative colleagues in the efficacy of the diphtheria antitoxin.

The amassed statistics, however, gathered from all parts of the scientific world, can leave no doubt in the minds of even the most conservative, of the effectiveness of diphtheria antitoxin, be it employed early or late, in old or in young, in severe or in mild cases, in hospital or in private practice—the verdict has been, with but rare exceptions, "success."

DIPHTHERIA AND ITS ANTITOXIN.

After a two years' study of the action of antitoxin in diphtheria, and after its general use to an extent that is almost unrivalled in the history of medicine, it is interesting to note that there are still two almost diametrically opposite opinions regarding its use. While the report of the American Pediatric Society, the summary of whose collective investigation is published elsewhere in this journal, is decidedly in favor of serum therapy in this disease, Dr. Elmer Lee, the vice-president of the American Academy of Medicine, publishes an article entitled "The Fallacy of the Antitoxin Treatment as a Cure for Diphtheria," in which he positively condemns its use, not only as ineffectual but as absolutely dangerous.

While in the report of the American Pediatric Society it is stated that "the most convincing argument, and to the minds of the committee an absolute, unanswerable one, in favor of serum therapy, is found in the results obtained in the 1,256 laryngeal cases. In one-half of these recovery took place without operation, in a large proportion of which the symptoms of stenosis were severe—the mortality

obtained being less than half as great as has ever been reported by any other method of treatment."

Dr. Lee, on the other hand, states that "the records of the cases treated in the Willard Parker Hospital, of New York City, proves that antitoxin is dangerous and even fatal. The statistics of this hospital establishes that the further use of antitoxin is unjustifiable." Prof. Lennox Browne, of London, patiently and earnestly sought for clinical reasons to further the interests of antitoxin, but his conclusions are emphatic and pronounced against it.

Dr. Fletcher Ingalls, of Chicago, read an article before the Illinois State Medical Society, May, 1896, in which he gives a careful and elaborate review of the use of antitoxin in diphtheria, and concludes with the statement that antitoxin has certainly not proven a specific for diphtheria, and earnestly warns against too much reliance in its use to the exclusion of other remedies.

It is clear, therefore, that the necessity for further investigation in the use of diphtheritic antitoxin is evident, and the action of the American Pediatric Society in appointing a committee to continue the work for another year, with instruction to obtain all available information on the subject, is to be commended. In such a manner alone can the true value of serum therapy in diphtheria be established.

SCHEPPEGRELL.

AMERICAN PEDIATRIC SOCIETY.

COLLECTIVE REPORT ON DIPHTHERIA ANTITOXIN.

Our esteemed contemporary, *Pediatrics*, issues a supplement with the July number containing the excellent report of the American Pediatric Society's investigation on diphtheria antitoxin. The investigation has been undertaken by impartial representatives, to obtain a careful estimate of the value of the serum treatment in America, and the very favorable returns express volumes in the interest of the great discovery of Roux and Behring. The bulk of the returns are given by physicians from private practice, and, on the whole, these data and their averages differ but slightly from the very favorable hospital statistics from all parts of the world. The analysis of 3,628 cases, reported by 615 physicians, represents 15 states, the District of Columbia and Canada.

We quote the summary of the committee's report in another part of this issue.

SELECTIONS
FROM CURRENT MEDICAL PUBLICATIONS.

RHINOLOGICAL.

The Nose as a Germ-Filter.

The experiments of St. Clair Thompson and R. T. Heirlett (*Medical Record*, June 6, 1896) emphasize the importance of having a healthy nose. Their researches show that, under very favorable conditions, the lowest number of organisms contained in the inhaled air of an hour was fifteen hundred; and that in a large city, the air that passes through the nose in the same period is charged with from twelve to fifteen thousand. Tyndall has shown that the last portion of an expiration is free from impurities. Other authorities have demonstrated that the interior of normal nasal cavities is perfectly aseptic. The vibrissæ, which line the vestibules of the nose, however, are usually well-laden with micro-organisms. This clearly proves that this portion of the respiratory tract acts as an excellent filter, and that a large number of bacteria meet destruction at this site. Furthermore, pathogenic organisms which have reached the interior of the nose are readily ejected. The following experiment substantiates the last remark: A pure culture of bacillus prodigiosus was placed upon the nasal septum, some distance from the vestibule. Cultures were made every few moments. Continual falling off of the growth in the culture-medium was observed, until at the end of two hours no growth of the bacillus could be detected. LEDERMAN.

An Anatomical Observation.

Dr. Thos. F. Rumbold asserts that the bones of the face stop growing at adult age, but that the cartilages of the nose do not stop growing while the individual lives.

The Prophylaxis of Nasal Catarrh.

The well-known author, Carl Seiler (*N. Y. Med. Journal*, July, 1896), states that the fundamental origin of this affection arises from the so-called rearing of children by over-feeding, over-clothing and over-care-taking. Fresh air, he remarks, is nature's best remedy, and should be administered with a lavish hand. Too much care in the handling of young ones should be avoided. Avoid the unwholesome desire to over-dress the body. Cleanliness, not only of the body, but of the nasal cavities, should be practiced. It is an important part of an individual toilet, and prevents the putrefactive process, and thus avoids the possibility of systemic infection by the ingestion of the products of putrefaction in the susceptible system of a young child.

As early as possible a child should be taught to snuff up the nose a warm saline or alkaline solution, with or without the addition of antiseptics, either from the hollow of the hand or from a small cup or glass, three or four times morning and evening. In this manner the habit is formed, and the routine cleansing becomes a regularity. Atomizers and douches should be avoided at this period of life. The solution employed must be non-irritating and at a suitable temperature, so as not to chill the mucous membrane and cause unpleasant symptoms. Cold applications, in the form of sponging the neck, chest and arms, are recommended. LEDERMAN.

The Etiology and Treatment of Ozæna.

Belfanti and Della Vedova (*La Settimana medica*, April 4th, 1896) gave the results of their researches on this subject, carried out at the Institute of Serum-therapy, in Milan (*Universal Med. Jour.*). They regard the disease as undoubtedly of bacterial origin, and due to a bacillus identical with that of Lœffler in form and characteristics, but differing from it in a great attenuation of virulence, causing only œdemas and moist gangrene at the site of the injections in guinea pigs. The micro-organism is found in the exudate in ozæna, in the depth and on the surface of the diseased mucous membrane, and gives rise to a chemical change in the secretion and to atrophy of the mucous membrane and the bone.

In view of these facts, the authors decided to employ the antidiphtheritic serum in the treatment of the disease, and they give the details of 32 cases, 16 of which were cured, 7 almost cured, 5 improved, and 4 showing slow improvement. The uncured cases are still under treatment, and the authors look for successful results in these also. The method of treatment consisted in making injections of 10 cubic centimeters (2½ fluid drachms) of antitoxin every two days,

or every day, if possible, until about thirty injections had been given, the number varying according to the age, duration of the disease, and local and general reaction of the remedy. The changes produced were: (1) a turgescence and congestion of the diseased mucous membrane; (2) disappearance of the characteristic odor; (3) appearance of fluid exudate; and (4) disappearance of green crusts. These alterations varied as to the time of their manifestation and their intensity. The complications produced during the treatment were neither severe nor dangerous, though the authors recommend suspending the injections until they disappear.

Bozzolo reported two cases treated by him with the antitoxin; the first a girl, 13 years of age, with chronic ozæna of an exceedingly fetid character. The odor entirely disappeared after the fourth injection, but on suspension of the treatment it returned after some time. Three injections were then made and the odor again disappeared. Multiple subcutaneous hæmorrhages made it necessary to abandon the treatment. Soon after the girl developed measles. At the time of report the condition of the nasal cavities was excellent. The second case was that of a woman of 43 years, in whom the bad smell disappeared after the fifth injection of the serum. She was still under treatment at the time of report.

Gradenigo stated that he had treated sixteen cases of ozæna with the serum. In five of these the bacteriological diagnosis had been made by Belfanti. In all there had been an improvement, though the number of injections had not as yet been sufficient to cause complete cure. One case of purulent ozæna had been particularly benefitted. He had noted a specific, elective action of the serum upon the diseased mucous membrane.

Oleo-Stearate of Zinc.

This preparation is recommended by Walter F. Chappel (*N. Y. Med. Journal*, May 30, 1896) as a pleasant and serviceable application in the treatment of diseases peculiar to the upper air passages. It is a combination of stearate of zinc with benzoinated liquid albolene. It does not precipitate at a temperature of 212° F., and remains fluid at 140° F. It is neutral, almost tasteless, and non-irritating. May be used alone, or as a base for other medicaments.

LEDERMAN.

Sarcoma of the Nasal Cavity Benefited by Ligation of both External Carotids

Is reported by Dr. M. D. Lederman (*Medical Review*). Malignant diseases of the nasal passage are rare, and no remedy is so important

as prompt surgical interference. Sarcoma usually develops before the age of 40 years, and, when fatal, destroys life in three or four years The round cell type is most malignant. Osteo-sarcomata grow with astonishing rapidity, as in a case examined by the author, in which it rapidly eroded the adjoining parts; and when last seen occupied the entire right side of the face. The case reported was a man of 26, suffering from repeated serious epitaxes, frontal headache, and obstructed nasal breathing on the right side. He was cachectic and emaciated. The growth filled the entire right side of the nasal cavity and choanæ, and was attached to the pharyngeal vault and the upper part of the pharynx and pterygoid plate of the sphenoid. On account of the extent to which the disease had progressed, trial was made of the toxin of erysipelas and bacillus prodigiosus. The reaction from this treatment was so severe that the patient, after the seventh injection, refused to allow any more to be made. Ligature of both external carotids was then done, the patient making a good recovery and afterwards going to the mountains. The improvement was remarkable, the patient gaining 20 pounds in weight. Two months afterwards, examination showed that the nasal part of the tumor had diminished to one-third of its former size, and probing no longer caused such hemorrhage. The removal of the remainder of the growth by means of a snare will be practiced in the near future.

SCHEPPEGRELL.

Myxo-Sarcoma.

Dr. Gilbert Barling, of Birmingham, England, reports in the *Am. Jour. of Surg. and Gynæcology*, the removal of a myxo-sarcoma growing from the basic sphenoid by splitting the palate. The growth reached to the level of the palate. The hard palate was split for nearly an inch, the muco-periosteum reflected, and the posterior part of the hard palate, with a portion of the septum attached, was chiseled away. After the removal of the growth the divided palate was sutured, and an uneventful recovery followed, with complete union of the palate. The author says: "Turning now to the case above related, one thing was made clear. It was that the method by splitting of the palate is only suitable for cases of very limited growth. The amount of room gained is quite inadequate for the removal of the more formidable variety of these tumors. From the point of view of recovery, without any drawback or deformity, this operation leaves nothing to be desired."

The Results of Injections of Erysipelas Toxins upon Malignant Growths.

The following conclusions were offered in a report before the New York Surgical Society by Drs. Stimson, Gerster and Curtis (*Annals of Surgery*, July, 1896):

1. That the danger to the patient from this treatment is great.

2. Moreover, that the alleged successes are so few and doubtful in character that the most that can be fairly alleged for the treatment by toxins is that it may offer a very slight chance of amelioration.

3. That valuable time has often been lost in operable cases by postponing operation for the sake of giving the method of treatment a trial.

4. Finally, and most important, that if the method is to be resorted to at all, it should be confined to the absolutely inoperable cases. LEDERMAN.

Total Rhinoplasy and the Operation for "Saddle-Nose."

Dr. Schimmelbusch (Berlin) states that only partial cosmetic and functional results are secured in the operation of total rhinoplasty, for the reason that for want of support the new nose gradually sinks, and then shrinks more and more (*Verhandlungen der deutschen Gesellschaft für Chirurgie.*, xxiv. Kongress, 1895; *Annals of Surgery*, July, 1896). By the introduction of bone in the flap replacing the nose, attempts have been made to give more stability to the same. So we find that Ollier made a bone-mucous-membrane flap from the root of the nose; Langenbeck a bony bridge from the border of the aperture pyriformis; and König took a bit of bone from the forehead to make a support for the soft parts. Schimmelbusch has gone so far as to form a new nose entirely out of bone. He has endeavored to construct the new nose as much as possible after the plan of the natural organ, so that it should have firm walls and an exact covering on its outer and inner surface. The plan of his operation, which he uses with modifications in the reconstruction of the saddle-nose, is essentially as follows:

For a so-called total rhinoplasty, a three-cornered skin and bone flap is taken from the middle of the forehead. This flap is so cut out with the knife that the smaller base is at the root of the nose and the broader side lies exactly in the middle of the forehead. With a sharp, broad chisel the anterior surface of the frontal bone represented by the flap is chiseled off. This is the most difficult part of the operation.

A large defect remains in the forehead, which, on account of the very slight elasticity of the scalp cannot be closed to any considerable degree by the use of sutures. It can be completely closed by a flap

operation in such a manner that the incisions for the same are made in the hairy scalp.

From the angles of the forehead defect, large, arched incisions are carried over the skull towards the ears, the flaps loosened and sutured over the forehead. In this manner simple linear scars remain in the forehead.

The loosened flap must first be allowed to granulate, and then it is transplanted upon the wound surface. The bone plate is sawed along its middle line and folded together in the form of the nose. This formed flap is then sutured into the freshened wound in such a way that the raw surface is posteriorly and the skin surface anteriorly. The septum of the nose is simply obtained from the skin in the deformed nose, so that strips of skin are taken from the sides of the defect as far as the natural position of the septum. The tip of the nose is also formed from the original nose.

In the first week a silver wire with buttons on either end is passed through the nose at the level of the wings, and left in place until the separation of the forehead flap and the end of the operation. This helps form the configuration of the nasal wings by its lateral pressure.

The operation for "saddle-nose" is the same in the first act except that the skin-bone flap is not transplanted. The bone is sawed through along its middle, and the two halves so placed that the wound surfaces look outward. The saddle-nose is then split along its centre, the two halves separated and turned aside, and frontal flap with its skin surface towards the nasal cavity sutured in place. The lateral halves of the nose are then replaced upon the new support. At first they only partially cover the nose, but after two or three weeks, when the base of the forehead flap is cut through, gradually the wound comes together till only a linear scar remains.

Schimmelbusch did the first total rhinoplastic and "saddle-nose" operations in the royal clinic four years ago. Since then Von Bergmann has operated upon all of the other cases. The operation has thus far been done twelve times. All of the noses have preserved their form well; indeed, they have improved with time. The profile, height, and the lumen, have remained, and shrinking has not occurred.

As no dangers or complications have arisen, Schimmelbusch warmly recommends his procedure. SCHEPPEGRELL.

Rhinoplasty by the Italian Method.

P. Berger (*Bull. de l'acad. de méd. de Paris*, Vol. xxxv., p. 204) strongly advocates the Italian method of rhinoplastic operations, so successfully used at one time by Tagliakozza and Graefe. With the aid of the author's simple fixation apparatus, the severe strain caused

by the binding of the arm to the head is considerably relieved. In the two cases reported by Berger the patients submitted to the fixation for a period of ten days with but slight inconvenience. The results in both cases were excellent.

Osteoplastic Opening of the Frontal Sinus.

Professor Czerney, Heidelberg, states that in an empyema of the frontal sinuses the first thing to do is to pass a sound into the sinus through the natural opening in the nose and keep the opening patent (*Verhandlungen der deutschen Gesellschaft fur Chirurgie*, xxiv. Kongress, 1895; *Annals of Surgery*, July, 1896). When this cannot be done, or when the disease cannot be cured by this method, an opening should be made in the place where the bulging is most prominent, in the depressed roof of the orbit or in the front of the frontal bone. If a large opening is made here by chiseling away the roof of the sinus, a depressed scar remains.

A young man who had been treated by the ordinary method of opening through the nose without his case having been brought to a favorable termination, was brought to the surgical clinic for relief. The frontal sinus was laid open by turning up a semicircular flap of bone and scalp, and the cavity freed of pus and granulations. The opening into the nose was enlarged and a drainage-tube inserted. The flap was kept open for a time with iodoform gauze, and healed firmly in four weeks without any deformity whatever. Six months later the healing was still solid. SCHEPPEGRELL.

LARYNGOLOGICAL.

The Laryngologist and the General Practitioner.

In the course of Dr. W. H. Daly's short but practical address (*N. Y. Med. Jour.*), as president of the American Laryngological Association, at its eighteenth annual meeting, occurs the following, which would seem to indicate that he considered the study of rhinology of more importance than laryngology: "The debt that general medical and surgical science and art owe to laryngology and rhinology, then, is so apparent and real that we must be pardoned for our expression of honest pride for the part this learned and pioneer society has taken to place and maintain it on the high plane it now occupies. Let us then go forward in the right direction, and especially endeavor to further reveal the obscurities that still surround *ethmoidal* and *sphenoidal diseases.*"

Cough.

Dr. Pearse (*Kas. City Med. Index*) classifies coughs as follows:

"It seems to me advisable to divide coughs into two general classes clinically. I have never seen such a classification in any text-book, yet I have found it helpful in practice, and so have submitted it here. My classification is:

1. Coughs that may safely be lessened, quieted or stopped by drugs.
2. Coughs that should be encouraged.

I.—MAY SAFELY BE RELIEVED BY DRUGS.

Acute.

1.	Dentition cough.	Reflexes.
2.	Ear diseases and irritations.	
3.	Gastric and enteric irritations.	
4.	Malaria.	
5.	Nasal irritations.	
6.	Whooping-cough.	Neuroses.
7.	Croup, spasmodic.	
8.	Croup, membranous.	Inflammations.
9.	Pharyngitis.	
10.	Pneumonia, *when dry*.	
11.	Pleurisy.	
12.	Trachitis and bronchitis.	
13.	Weak heart.	Irritations.
14.	Paroxysmal stage of asthma.	

Chronic.

15.	Organic heart lesions.	varicose
16.	Enlarged tonsil and post nasal growths.	adenoid
17.	Evening and night coughs of phthisis.	
18.	Evening and night coughs of chronic bronchitis.	
19.	Gastric or enteric irritations.	
20.	Lingual tonsil.	

II.—SHOULD BE ENCOURAGED.

Acute.

21.	Broncho-pneumonia, or capillary bronchitis.
22.	Lobar pneumonia if expectoration be in process.

Chronic.

23.	Morning cough of phthisis.
24.	Dilated bronchi.
25.	Chronic bronchitis (morning).
26.	Perforated abscess.
27.	Intra paroxysmal asthma.

"Each may be divided into acute and chronic conditions for the purpose of assisting in the direction of treatment; chronic cases requiring positively for their successful treatment a correct appreciation

of the causes underlying the cough, while an acute case will frequently require nothing more than a mild sedative and a day in bed to complete its cure.

"The treatment in each of these last classifications will be medical or surgical; and while it may surprise some of my hearers to think of a surgical treatment for cough, yet some of the most brilliant results are to be so obtained."

Simple Acute Laryngitis and Bronchitis.

According to clinical observation (*N. Y. Med. Journal*, July 18, 1896), an acute inflammation of the respiratory tract is of free progression. Resolution may have taken place in the larynx and trachea, and yet the lower tissues may be in an acute stage. The important factors tending towards recovery are a free flow of mucus and serum from the mucous membrane, and the getting rid of the foreign element as soon as possible. Retained secretions irritate and ferment, thus reinfecting the parts. Remedies that will stimulate secretion are indicated. The bronchial mucus is the best sedative to an inflamed larynx, and a flow of this non-irritating secretion should be encouraged. For five years the writer has found apomorphine, in a freshly compounded acidulated mixture, to be the best of all relaxing expectorants. He gives it in one-thirtieth grain doses, at two or three hours intervals, and it rarely fails to do its work. Rest is also applied in these cases. Sulphate of codein, in one-fifth grain doses, f. r. n., is also given. Carbonate of ammonium he found to be the most serviceable stimulating expectorant. LEDERMAN.

Use of Expectorants.

Dr. Thomas Hubbard, in the course of his article on the Principles of Treatment of Simple Acute Laryngitis and Bronchitis (*N. Y. Med. Jour.*, July 18, 1896), aptly refes to an old English medical aphorism, which the general practitioner and occasionally the specialist too often forgets, *i. e.*: "Never give stimulating expectorants until the skin is moist and the phlegm loose; it will do no good. You must give ipecac and relaxant expectorants as long as the skin is dry and the phlegm tough."

Asthma.

In a letter to the editors, Dr. M. B. Ketchum says: "Relative to the note on 'Asthma,' pape 65 of the July issue of THE LARYNGOSCOPE, would say that the patient referred to is still well, and it is now over two years since she reported herself as 'cured.'"

Intermittent Dysphonia Spastica.

Dr. Frederick I. Knight (*N. Y. Med. Journal*) says that in the way of treatment of the trouble, more attention has been paid to vocal exercise, and the importance of not speaking on inspiration insisted on.

Some Observations in Laryngeal Tuberculosis.

Among some of the more obscure points in the symptomatology of this affection, Vander Poel (*N. Y. Med. Journal*, July 18, 1896) mentions the simple weakness of the voice, without organic change in the larynx. This, he thinks, is due to the weakened tensors of the vocal cords. The latter appear shortened and shriveled. The appearance of the parts resembles the picture of hysterical aphonia; except that, in the latter ailment, the adductors are usually affected and not the tensor muscles. The paralysis of the right vocal cord, which is at times seen in tubercular disease of the larynx and lungs, is supposed to be due to the right recurrent nerve being imbedded in the hard, thickened pleural tissue about the apex of the right lung. Œdema naturally interferes with the usual movements of the crico-arytenoid articulation, and so may give rise to the symptom in question.

As a preliminary symptom to the development of a tubercular manifestation, the author has noticed "a slight thickening of the mucous membrane, associated with the presence of a white, milky, somewhat purulent, mucous fluid, which secretion contains no tubercle bacilli, but which he considers almost pathognomonic. It is chiefly found in the region of the aryteno-epiglottic folds, or may coat the interior of the larynx." He has seen this catarrhal state six weeks to two months before the usual symptoms developed. A case in point is mentioned.

LEDERMAN.

The Importance of Diet and Muscular Exercise in the Treatment of Tuberculosis.

Dr. McGillicuddy, in an article in the *Medical Record*, refers to the importance of diet and muscular exercise in the treatment of tuberculosis. In a large number of cases the bacillus of tuberculosis may be found before there are any well-marked physical signs. The bacteria often seem to be destroyed by phagocytosis. There is an antibacteriological property in the tissues, fluids and secretions of the body, and these form a natural defense against the growth of microorganisms; hence the importance of keeping up the strength and vitality of the patient. The blood serum is bactericidal, and this protecting property is enhanced by scientific dieting. At frequent intervals a

considerable quantity of carefully roasted or broiled beef or mutton, or raw eggs, or stale bread, and vegetables should be taken; if there is a disgust of food, the stomach should be treated, good results sometimes being obtained by dilute hydrochloric acid and drinking hot water. Physical exercise is important, but should be taken under a scientific instructor, so that the interest does not flag, and there may be an harmonious development of those parts of the body which need it most—thus round shoulders and a narrow chest may be improved. This treatment does not exclude the inhalation of creosote, terabin, etc., which are of great importance in the treatment of the disease.

SCHEPPEGRELL.

Tubercular Infection by Way of the Tonsils.

Dr. Dieulafoy (*Bull. de l'Acad. de Méd.*) has made inoculations from hypertrophied faucial and pharyngeal tonsils in guinea-pigs, and developed tuberculosis in 14 and 20 per cent. respectively. In the early stage of tubercular infection there is hypertrophy, but the phagocytes may obtain the upper hand, followed by shrinkage of the tonsils, without any further extension of the tubercular process. Frequently, however, the infective microbes reach the lymphatics of the tonsils and pass to the sub-maxillary and cervical region. They may be destroyed here, but they may also extend from group to group, especially if the case is complicated by an attack of scarlet fever, measles, whooping-cough, influenza or syphilis. The bacilli may be carried by continuity through the lymphatics until either the thoracic duct or the right lymphatic duct is reached, whence they may be carried to the right side of the heart and finally to the lungs. The interval between the first and this last stage may be a few months or several years. The fact that the pharyngeal tonsil is more often affected, shows that the bacillus may travel through the nasal passage.

Cornil, in discussing the paper, claims that in his histological examinations, he was able to find signs of a tubercular process in only four of seventy cases, and never in cases of hypertrophied faucial tonsils. He suggested that in inoculation experiments, the bacilli may enter by the mouth or nose, and becoming entangled in the anfractuosities of the adenoids, or the crypts of the faucial tonsils, may give fallacious results.

SCHEPPEGRELL.

Guiacol as a Local Anesthetic in Diseases of the Ear, Nose and Throat.

George Laurens (*Annales des Malad. de L' Oreille, etc.*, Vol. xxii., No. 1) demonstrates in a series of cases that guiacol has a marked local

anesthetic effect when applied to the ear or pharynx. Laurens uses a solution of guiacol in pure olive oil (1 in 10).

To apply to the ear, 5—6 drops of the warmed medicated oil are instilled in the canal and left for ten to twenty minutes. The surplus is removed with absorbent cotton. In three cases of paracentesis auris the drum membrane was relatively well anesthetized and the operation apparently painless. (?)

To produce anesthesia in the nasal tract for cauterization, removal of polypi, etc., requires much longer time than by use of cocain. The lower turbinates are painted briskly for one minute, and a saturated pledget of cotton placed in contact with the mucous membrane.

The tissue-retraction produced by cocainization, making a thorough inspection of the nasal cavities possible, is not an accompaniment of the guiacol application.

No indications of disagreeable effects, however, have been noticed. This new use of guiacol gives promise of being of some service in operations on the ear, nose and throat.

Report of the American Pediatric Society's Collective Investigation into the Use of Antitoxin in the Treatment of Diphtheria in Private Practice. (Summary.)

With a view of obtaining an expression of opinion from American physicians as to the value of the serum treatment in diphtheria, the American Pediatric Society sent out circular letters to a large number of physicians, requesting information upon the following points: age, previous condition, duration of disease when first injection was made, the number of injections, the extent of the membrane—tonsils, nose, pharynx and larynx; whether or not the diagnosis was confirmed by culture; complications or sequelæ, viz.: pneumonia, nephritis, sepsis, paralysis; the result, as regards, other treatment employed, the preparation of antitoxin used, and general impression drawn from the case.

The report of the committee from the study of 3,628 cases reported is elaborate and instructive, and includes several important statistical tables. The following is the summary of the report:

1. The report includes returns from 615 physicians. Of this number more than 600 have pronounced themselves strongly in favor of the serum treatment, the great majority being enthusiastic in its advocacy.

2. The cases included have been drawn from localities widely separated from each other, so that any peculiarity of local conditions to which might be ascribed the favorable reports must be excluded.

3. The report includes the record of every case returned, except those in which the evidence of diphtheria was clearly questionable.

It will be noted that doubtful cases which recovered have been excluded, while doubtful cases which were fatal have been included.

4. No new cases of sudden death immediately after injection have been returned.

5. The number of cases injected reasonably early, in which the serum appeared not to influence the progress of the disease, was but nineteen, these being made up of nine cases of somewhat doubtful diagnosis; four cases of diphtheria complicating measles; and three malignant cases in which the progress was so rapid that the cases had passed beyond any reasonable prospect of recovery before the serum was used. In two of these the serum was of uncertain strength and of doubtful value.

6. The number of cases in which the patients appeared to have been made worse by serum was three, and among these there is only one new case in which the result may fairly be attributed to the injection.

7. The general mortality in the 5,794 cases reported was 12.3 per cent.; excluding the cases moribund at the time of injection, or dying within twenty-four hours, it was 8.8 per cent.

8. The most striking improvement was seen in the cases injected during the first three days. Of 4,120 such cases, the mortality was 7.3 per cent.; excluding cases moribund at the time of the injection or dying within twenty-four hours, it was 4.8 per cent.

9. The mortality of 1,448 cases injected on and after the fourth day was 27 per cent.

10. The most convincing argument, and to the minds of the committee an absolutely unanswerable one in favor of serum therapy is found in the results obtained in the 1,256 laryngeal cases (membranous croup). In one-half of these recovery took place without operation, in a large proportion of which the symptoms of stenosis were severe. Of the 533 cases in which intubation was performed the mortality was 25.9 per cent., or less than half as great as has ever been reported by any other method of treatment.

11. The proportion of cases of broncho-pneumonia—5.9 per cent.—is very small, and in striking contrast to results published from hospital sources.

12. As against the two or three instances in which the serum is believed to have acted unfavorably upon the heart, might be cited a large number in which there was a distinct improvement in the heart's action after the serum was injected.

13. There is very little, if any, evidence to show that nephritis was caused in any case by the injection of serum. The number of cases

of genuine nephritis is remarkably small, the deaths from that source numbering but fifteen.

14. The effect of the serum on the nervous system is less marked than upon any other part of the body; paralytic sequelæ being recorded in 9.7 per cent. of the cases, the reports going to show that the protection afforded by the serum is not great unless injections are made very early.

THE ACTION OF THE SOCIETY UPON THE REPORT.

At the close of its presentation, the society voted to accept the report of the committee, and after a full discussion it was decided to embody its conclusions in the following resolutions:

1. *Dosage.*—For a child over two years old, the dosage of antitoxin should be in all laryngeal cases with stenosis, and in all other severe cases, 1,500 to 2,000 units for the first injection, to be repeated in from eighteen to twenty-four hours if there is no improvement; a third dose after a similar interval if necessary. For severe cases in children under two years, and for mild cases over that age, the initial dose should be 1,000 units, to be repeated as above if necessary; a second dose is not usually required. The dosage should always be estimated in antitoxin units and not of the amount of serum.

2. *Quality of Antitoxin.*—The most concentrated strength of an absolutely reliable preparation.

3. *Time of Administration.*—Antitoxin should be administered as early as possible on a clinical diagnosis, not waiting for a bacteriological culture. However late the first observation is made, an injection should be given unless the progress of the case is favorable and satisfactory.

The committee was appointed to continue its work for another year, and was requested to issue another circulur asking for the further co-operation of the profession, this circular to be sent out as soon as possible in order that physicians may record their cases as they occur through the coming year.

The Fallacy of Antitoxin Treatment as a Cure for Diphtheria.

Dr. Elmer Lee (*The Journal of the American Medical Association*, July 4, 1896), in considering diphtheria from a clinical standpoint, states that there are two varieties: one is true clinical dipththeria, the gross symptoms of which are entirely sufficient for practical diagnosis; the other is the diphtheria of the bacteriologic laboratory. These two varieties are made necessary by the claims of bacteriology, by which discovery practical medicine has been both aided and retarded. Aided,

by helping to a clearer understanding of the pathogenic and bacteriologic changes during the process of disease; and hindered, for the time being, by throwing a cloud across the pathway of natural and practical therapeutics.

Diphtheria is a systemic disease with both local and general manifestations. The local manifestations are located principally in the throat and larynx. By some observers the local symptomatology is considered paramount. It is taught by bacteriologists that local microbes develop toxins upon the mucous membrane of the throat, and from this source the entire system is infected; whereas the true explanation regards the pathologic changes in the throat as but local exhibitions of the general systemic poison. The laboratory declaration that a Klebs-Löffler baccillus found in the secretion of the throat establishes *prima facie* evidence that a disease is diphtheria, need not confuse our judgment and interfere with the conclusion previously stated in the foregoing sentence. It is undoubtedly true that suitable nourishment for the growth of germs is found in the throats of children whose general system is impaired with diphtheritic sepsis. The so-called specific germ is found upon the tonsil both in health as well as in disease. Is it, therefore, a reliable means of determining the diagnosis of diphtheria?

Is the explanation of the false membrane which forms upon the throat, thus interfering with respiration, to be found in bacteriologic inquiry? When the system is impaired, and a determination of the weakened vital forces results in an inflammation of the fauces, there is thrown out upon the mucous membrane a thick, tenacious, glairy fluid, which dries and thickens into a membrane. The inflammatory state of the mucous membrane keeps adding fresh serous discharges, thus augmenting the deposit and ultimately filling the free space of the throat. In this serum the colonies of a variety of germs find normal food for nourishment and growth. Owing to the occlusion of the breathing space, insufficient air enters the lungs, and further embarrassment of the health of the child quickly ensues. Examinations of the blood show an altered relationship among the component parts. Capillary circulation is diminished, and congestions arise, both in the structures of the throat and neck and in other tissues which are adjacent. The physical economy of the vital organs is imperilled, and their functions are imperfectly performed. Retention of morbid matter rapidly accumulates throughout the entire system, especially in the capillary and lymphatic vessels. Great efforts are made by the resisting vitality to unload its burden and repair the damage.

At this time of the pathologic processes there are two therapeutic measures which are imperatively demanded: first, the supply of new force to the tissues by fresh nutrition; and secondly, aid to the impaired efforts of the organism to remove the morbid and retained matters. Nature is doing all that it can to carry the effete material produced by the disease out of the system through the excretory organs. At this moment what is accomplished by forcing into the circulation a substance which has no natural relationship to the structure of a single element composing the entire body? The system is laboring and panting for life under the oppression of toxins which it is trying to eliminate. At the very crisis of the greatest strain upon vital resources a serum which does not belong to the human economy is strangely added to the fearful load, which is in some cases the last straw that breaks the camel's back. Its use is therefore unphysiologic and absolutely contra-indicated. The bacteriologist affirms to the contrary; observe which is the better able to judge—practical clinicians, or the ultra-scientist in the laboratory?

The claims that are seductively held out, that cases treated early by antitoxin would recover, have utterly failed. The claim subsequently, that cases treated by antitoxin recover more quickly than those not so treated, has utterly failed to be true. The claim that the death rate would be lessened has proved to be a disappointment. The claim that antitoxin was harmless has been proven to the contrary by many fatal terminations. Judging from the facts concerning the use of antitoxin in practice, does there stand on record to day one single valid reason, from a clinical standpoint, to encourage the hope of better results in the future than have been attained in the past by other methods of treatment? It is not the purpose to impute insincerity or lack of intelligent industry on the part of the profession concerned in experimenting with antitoxin, but the promises of better results through its use have unfortunately failed to be substantiated.

The human system, when laboring under morbid influences, needs rather those elements which can add strength and vigor to the vital resistance. By what law or principle in physiology can augmented vital resistance be maintained by the introduction of antitoxin into the system? Has the explanation of the action of antitoxin been satisfactorily given by those who are its sponsors? It is to be conceded that there are cases of diphtheria which when treated by antitoxin have seemingly progressed favorably; while there are other cases which have quickly terminated favorably. The influence of the antitoxin virus is directly dependent upon the condition of the patient at the time of its introduction. If the powers are well maintained, as during

the first few days of the disease, naturally the system is stronger and efforts more effective towards elimination, both of the antitoxin introduced and of the autogenerated toxin. Here is the explanation of the advantage claimed by the early use of antitoxin. It follows, when the system is further impaired, its phagocytic action is also impaired, and the chances for recovery, by reason of the further introduction of extraneous matter, are lessened. What physiologic problem could be more simple? The point is this: that the blood does not need to be further polluted in order to expel the autogenerated products which it already contains. Can anyone explain the reaction which takes place in the human living organism when antitoxin is added? There is a reaction, but that the reaction is a curative influence is open to discussion.

The records of the cases treated in the Willard Parker Hospital, of New York City, prove that antitoxin is dangerous and even fatal. The statistics of that hospital establish that the further use of antitoxin is unjustifiable. Extreme interest and effort to know the truth has guided the staff of the Willard Parker Hospital. Dr. Joseph E. Winters, of New York, has sought diligently to establish the value of antitoxin, but the clinical experiences have forced him unwillingly to condemn its use. Is it safe to neglect the warning of such an experienced clinician and medical teacher? Professor Lennox Browne, of London, patiently and earnestly sought for clinical reasons to further the interests of antitoxin. His conclusions are emphatic and pronounced against it. Dr. Weeks, of Philadelphia, also deprecates the use of antitoxin, basing the conclusions upon an extensive experience in the Municipal Hospital of that city. Health department statistics of New York are cited in Chicago to the advantage of antitoxin, and Chicago statistics are published in the interest of antitoxin in New York. Health department methods of collecting information must be taken with allowance for accuracy. Previous to leaving Chicago a culture was made of the tongue of the office boy, and the tube left at the city health office. The answer received stated that the case was one of true diphtheria. In fact, the boy was not ill at all. Provisions were immediately made by the department to fumigate and otherwise annoy the family at the boy's home. Is it not easy to be seen that the enthusiasm and overzealous interest of the medical corps in the employ of cities may bring to the notice of the health departments cases similar to the one cited? Such reports go on the records, and contribute toward the statistics which are sent broadcast. The statistics very quickly become confused, and their power for usefulness is absolutely *nil*. Unquestionably large numbers of cases which have been reported to be diphtheria

and cured by an injection of antitoxin have been of the bacteriologic class.

It was recently stated to me, upon good authority, that the sales were falling off rapidly, and an early termination of the demand for antitoxin was not far off; also that offers to purchase antitoxin upon most advantageous figures have been declined, because of the fear of pecuniary loss. Thus the straws point the way the wind blows.

SCHEPPEGRELL.

Diphtheria Antitoxin in Japan.

There were 353 cases of diphtheria treated by serum injections in Tokio during the year ending November 25, 1895 (*Med. Rec.*). Of this number 31, or 8.78 per cent., died. In the statistics collected by Kitasato of 26,521 cases of diphtheria in Japan, treated before the introduction of serotherapy, the number of deaths was 14,996, a mortality of 56.54 per cent.

Nasal Feeding in Diphtheria.

Dr. C. B. Stevens says: "The advantages of nasal feeding are: that nothing gets into the trachea, that the naso-pharynx is not irritated by food and drugs, and that sufficient and known amounts of food and drugs can be given at regular intervals. The children who need food and stimulants most refuse them."

X Rays.

Dr. Wm. H. Price, in the *Med. and Surg. Reporter*, reports a case wherein a jack-stone had been swallowed by a child 2½ years old. The foreign body was located, by means of a skiograph, in the œsophagus nearly opposite the second rib. Operation for its removal was successful.

Penetration of a Portion of a Tracheotomy-Canula into the Lung.

A. Blumenthal (*Medycyna*, 1896, No. 3) describes this rare case (*Centralblatt für Chirurgie*): Two years prior to the occurrence of the present troubles, tracheotomy was performed on a healthy young driver, who had received some injury about the neck. A metal tracheotomy tube had been introduced, and the outer tube had remained unchanged and uncleaned in the trachea. During a severe paroxysm of coughing, patient experienced the sensation of something falling into the depths of the trachea. This was followed by intense dyspnea. On removal of the canula, the outer tube was found broken, and a portion missing. Patient claimed to be able to feel the movement of the foreign body with every inspiration and expiration. A

careful examination was made three days later; only a considerable dyspnea and diminished respiratory sounds in left lung were found. Probing of the trachea negative. The cyanosis and severe dyspnea gradually disappeared. Patient complained of pain in left eighth intercostal space; there was also profuse bloody, purulent expectoration. About two months later, the patient appeared apparently cured. Expectoration of pus and blood had ceased; cough very slight; patient again resumed his work as driver. Physical examination revealed nothing abnormal. This case demonstrates that foreign bodies may penetrate from the trachea to the parenchyma of the lung without causing serious disturbance in the tissues, and that healing and encapsulation may take place.

Primary Epithelioma of the Epiglottis.

A very rare case of primary epithelioma of the epiglottis is reported by Angelsco (*Bull. de la soc. anat. de Paris*, Vol. ix., p. 764). The laryngoscopic examination demonstrates clearly the seat of the lesion and the point of development and character of the growth. The entire epiglottis was involved. After a previously-made tracheotomy, the removal of the growth was accomplished. Patient died several days later of broncho-pneumonia.

The Operation of Thyrotomy.

Dr. Philip de Santi (*The Journal of Laryngology*, No. 6, 1896), in a paper before the British Medical Association, gives the following description of the operation of thyrotomy: The patient should be anesthetized, with chloroform preferably, as ether excites the secretion of much mucus and saliva, which obscure the parts to be removed; an incision is made mesially from the upper border of the thyroid cartilage to about one-and-a-half inches below the cricoid. The trachea is exposed and opened, and a Hahn's compressed sponge canula inserted. After the lapse of ten to fifteen minutes the compressed sponge will have expanded sufficiently to prevent entry of blood into the larynx, and the parts over the thyroid are divided, and the cartilage exposed and divided mesially with bone forceps or small saw. The alæ are then held aside, and the interior of the larynx is painted with a five per cent. solution of cocaine to diminish the sensibility of the parts. Two elliptical incisions are now made around the diseased tissue, going wide of them, and down to the perichondrium; the growth is seized with forceps and removed, together with the mucous membrane, with curved, sharp-pointed scissors. The base is sharp-spooned, the interior of the wound dusted with iodoform, and the Hahn's canula removed at once. This is important, as septic infec-

tion has followed the retention of the sponge canula for twenty-four to forty-eight hours. The whole external wound is left open, being covered with a layer of iodoform gauze.

For innocent growths avoid sharp-spooning, and suture the thyroid alæ accurately together with fine silver wire.

After-treatment.—Keep the patient on the side corresponding to the half of the larynx operated on, and the head low; feed the patient for the first day or two on nutrient enemata; on the day subsequent to the operation try to give fluids by the mouth, the patient being made to sit up and lean well forwards. Give water as a trial; if it gets into the larynx it at once runs out through the wound; should it be successfully swallowed, beef tea, milk, etc., are given.

The wound must be carefully dusted with iodoform daily. During the act of swallowing the two lips of the wound into the larynx separate sufficiently to allow of the introduction of the nozzle of an insufflator between them. As a rule there is but little constitutional disturbance, and the wound rapidly heals by granulations.

SCHEPPEGRELL.

One Thousand Goitre Excisions.

Professor T. Kocher (Berne) states that twelve years ago he reported to the German Surgical Congress his first one hundred cases of thyroid operation for goitre (*Verhandlung der deutschen Gesellschaft für Chirurgie*, xxiv. Kongress, 1895 — *Annals of Surgery*, July, 1896). He described at that time very graphically the symptoms associated with cachexia strumipriva.

At the last German Congress he reported 1,000 operations for goitre. This report is of the greatest interest and importance, for the reason that all of the operations were done in one hospital. Among the last 900 cases cachexia strumipriva occurred in but one. In that case after removal of one-half of the struma the other half became atrophic. Acute symptoms in the form of tetany were observed, especially in cases in which the thyroid was operated on for malignant tumors and in which but a very small part of the gland could be left. But in all cases these acute symptoms have invariably subsided without ill effect. All of the other cases of cachexia strumipriva were also cured by thyroid diet. Another complication, injury to the voice, which occurred in 7 per cent. of cases, he believes can be avoided by proper care. In the cases in which he operated for benign tumors the vocal disturbance was always recovered from. The mortality statistics in these cases is of especial interest. After deducting the cases operated upon for malignant disease, the mortality in 870 cases (many

of which were very complicated) was eleven, a death rate of a little more than 1 per cent. Among these cases were some which were from the beginning almost hopeless cases, and which were brought to the hospital in a moribund condition. Five cases died as an immediate result of the operation; three died of morbus Basedowii. In such cases he afterwards avoided excision, and contented himself with the ligating of three arteries. In one case, after ligating all four arteries, tetany developed. Of the simple, non-complicated cases only three died.

There was not a single chloroform death among the last 900 cases; one occurred among the first 100. One case of ether-bronchitis is reported. Kocher is of the opinion that when there is marked dyspnea the operation had best be done under cocaine anesthesia, as these patients bear cocaine very well.

Two deaths were due to infection; these occurred in cases operated upon for recurrent disease. There is a series of 150 uncomplicated cases of healing. There was also a series of 272 operations for goitre without a death. This series includes some very severe cases with highly developed thyreoptosis.

Although these results are objects of great pride to the surgeon, the patients would have been much better satisfied, and would have regarded it as a triumph of science, had they been cured by dietary and medicinal measures. The experiments of his assistants, Lanz and Trachevsky, show that by a long course of thyroid feeding the goitre can be reduced in size and made to atrophy to such a degree that there is danger of destroying the function of the thyroid gland. When these experiments were carried out in the case of animals very important results were obtained. Mikulicz advanced the theory that when too much thyroid secretion is introduced into the system the symptoms of Basedow's disease develop. This theory does not apply to all animals the same. Mice, rabbits and dogs vary greatly in their susceptibility to the thyroid secretion of sheep and swine. Kocher and Trachevsky removed the thyroid gland from pregnant animals to see whether fetal cretinism could be artificially produced. As a result of the operation rachitic young were born. Pregnant animals are very susceptible to the removal of the thyroid. Trachevsky has discovered that an atrophy of the thyroid can be caused by the internal administration of phosphates. Kocher discovered that a great improvement of the symptoms of Basedow's disease could be brought about by the administration of sodium phosphate. Von Trachevsky concluded from these observations that the thyroid gland bore some relation to the presence of phosphates in the animal economy. It must

be concluded that the development of goitre can be greatly influenced by dietetic and medicinal measures, and especially by the use of thyroid secretion.

At the Surgical Congress, Kocher presented two photographs of a man who before the beginning of the dietetic treatment had an immense goitre, and which at the end of eighteen months had been made to entirely disappear.

He is of the opinion that the abnormal secretion of thyroid juice has an etiological relation to Basedow's disease, and that the exciting cause for the disease must be sought for in the nervous system.

SCHEPPEGRELL.

OTOLOGICAL.

The Use of Cold Water in Diseases of the Ear.

At a recent meeting of the Hungarian Otologists and Laryngologists (*Monatsch. f. Ohrenhlkde*, xxix., 4), Dr. Boeke stated that he used ice bandages, or the Leiter's apparatus, in the following conditions of the ear:

1. In traumatic cases in which the external parts of the ear have suffered.
2. In inflammatory processes of the auricular canal, drum-membrane, tympanum or the mastoid process.
3. In chronic suppuration, when sensitiveness, pain or even œdema of the skin develops over the mastoid process.

To support the efficacy of this treatment, Dr. Boeke gives the clinical history of several cases: two cases of traumatism with cerebral symptoms, one case of chronic purulent otitis media, in which, after the use of creolin, there was unconsciousness, stupor and high fever, and a case of suppurative inflammation of the tympanum complicated with facial paralysis. In all of these cases the result was excellent. Also in cases of grippal otitis media, especially in the early stages, in which the results are surprisingly successful.

SCHEPPEGRELL.

Oxygen in Aural and Nasal Diseases.

Excellent results are reported from the inhalation of oxygen in three chronic cases. In one, a woman suffering from syphilitic ozena

of five years' duration, the disease had proven rebellious to all forms of treatment. Most of the internal nasal structures had been lost. One cubic foot of gas was inhaled every second hour during the day. After one month's treatment, without further medication, the patient was free from all disagreeable odor. The second case was a young, anemic girl with some menstrual disorder. She was a subject of chlorotic ozena, which had existed for two years. After three days' treatment with oxygen the odor had vanished. In sixteen days crust formation had ceased. Case three was a girl fourteen years old, in whom a suppurative otitis media followed scarlet fever seven years previously. During this time a dark-colored, offensive discharge appeared from both ears. Oxygen was administered for about four hours a day during nine weeks. The offensive discharge and smell disappeared during the first ten days.—GEORGE STOKER, England, *American Medico-Surg. Bull.*, June 6, 1896. LEDERMAN.

Contribution to the Diagnosis and Treatment of Cholesteatoma, Etc.

Otologists, according to the author, agree that cholesteatoma of the middle ear is not "a primary tumor-formation, but rather a replacement of the epithelium of the mucosa by an epidermic covering, the superficial layers of which are cast off and collected in the form of tumor-like masses."

He claims that a diagnosis can only be made with certainty, if by inspection, an epidermic transformation of at least a portion of the mucous membrane of the middle ear can be demonstrated. The existence of cast-off, scaly epidermis debris in the middle ear favors the diagnosis. Bezold has remarked that "as soon as the sharp boundary between the cutis and mucosa disappears at any point by destruction of the surface, we observe the cutis (or epidermis) spreading out, and gradually replacing the mucosa." This does not take place if the perforation in the drum is central. If, however, the perforation is marginal, or if the edges of a central perforation become attached to the inner wall of the tympanum, the disease is liable to appear.

The most radical method of curing the disease, if same affects the aditus and antrum, is by chiseling the mastoid process, and resecting the upper and posterior wall of the meatus. If urgent symptoms present, then radical measures (as above) must be carried out. If such symptoms are wanting, conservative treatment may result in a cure.—A. SCHEIBE, Munich, *Archives of Otology*, April, 1896.

LEDERMAN.

Necrosis of the Labyrinth.

Patient, boy, 3½ years old; suppurative otitis media, occurring as a result of an attack of measles (Rueda, of Madrid, *Revue de Laryngol.*, 1896, No. 11). The case progressed to a necrosis and exfoliation of a considerable portion of the labyrinth, comprising the lower portion of the vestibule, the posterior half of the superior semi-circular canal, the ampulla of the inferior semi-circular canal, and a portion of the first spiral of the cochlea. The results were: facial paralysis, and a temporary disturbance of equilibrium, with a tendency to stagger and fall on the affected side. The sequestrum was removed through the external auditory canal, and a complete recovery followed. Rueda states that the patient now hears words with the affected ear at a distance of *twelve feet.*

Foreign Body in the Eustachian Tube.

A resumé of the cases thus far published of "Foreign Bodies in the Eustachian Tube," from various sources (naso-pharynx, external canal or tympanum), precedes the report of a case occurring in Prof. Wagenhäuser's clinic (Camerer, *Archiv. f. Ohrenheilk.*, Vol. 40, No. 1).

A boy, 6 years of age, had fallen from a wagon fifteen months previous to his entrance to the clinic, and a piece of straw had been driven into the mouth. The visible portion had been removed at the time. One month later the right lateral pharyngeal area presented a swollen condition, and otorrhea appeared in the right ear. A cicatrix was noted on the glosso-palatine arch. The otorrhea continued for one year, and lately aural hemorrhage had been observed on the affected side. On examination, the canal was found filled with a dark, offensive-smelling, inspissated mass; the fundus exhibited a quantity of granulations, under which the probe detected roughened bone; on further manipulation, a hard, movable body was discovered, which, on removal, proved to be a piece of straw, 4½ cm. long and 2 mm. thick. The patient made an excellent recovery.

Clinical Examination of Deaf Mutes.

S. T. Walker, superintendent Illinois Institute for the Education of the Deaf and Dumb, Jacksonville, Ill. (*Cincinnati Lancet-Clinic*, July 4th, 1896), emphasizes the importance of making a careful aural examination of all deaf children in State and other institutions, where they are under constant supervision, and describes in detail the excellent method in use at the Illinois State Institution.

In summary, the purposes of such examinations, systematically conducted, are:

1. To establish more accurate data of the etiology of deafness. These statistics can be compiled to include every minutiæ of the examination, and, if a similar procedure is carried out in the various institutions, may become a source of valuable information to this important department of otology.

2. To employ otological treatment in many cases which, as the examination would prove, could be materially benefitted. Walker states that seventy per cent. of the children attending the Illinois State Institution for Deaf Mutes have not had a careful inspection of the ears, with a view to correct diagnosis. If this is the case the value of such examinations cannot be overestimated, as a careful course of treatment may restore many of these children to complete usefulness.

3. To encourage co-operation between superintendents and directors of the various institutions for the deaf and the otologists. Should the interests of the professional at large be enlisted, and the active participation of the aurists be secured, the mutual benefit derived from the combined data would materially advance the interests of otology.

Artificial Ear-Drum Membranes.

Dr. Vincent Gometz says (*New Polyclinic; The Journal of the American Medical Association*, July, 1896): The artificial-drum membrane was first used by the laity in 1640, and afterward by the profession. It has been made of a variety of materials. Yearsley, in 1841, selected a cotton pellet for the purpose. It is first slightly moistened and placed in the same position where it will best improve the hearing. This will be found by experiments. Toynbee, in 1853, introduced an artificial membrane, consisting of a thin rubber disc attached to a fine wire. Lucae has covered the wire with rubber tubing, to prevent the unpleasant rattling in the ear. Gruber uses a similar piece of rubber as that of Toynbee, but attaches to it a piece of silk thread to withdraw it from the ear. Artificial drums are sometimes made of tin foil, used in the same manner as cotton. Ordinary blotting paper answers the purpose very well. The indications for the use of the artificial-drum membrane are as follows: 1, when a drum cavity needs protecting from the air; 2, whenever the ossicula are detached from each other, the result of destruction of their ligaments or from failure of the membrane to keep them in proper contact; or even a severance of continuity consequent on relaxation of the ligaments or absence of the incus, with a gap existing between the membranes and the stapes (the latter also may be in a state of subluxation from relaxation of its annular ligament), the artificial membrane keeps it properly in position.

NEW INSTRUMENTS.

Adenoid Forceps.

A new form of adenoid forceps was presented at the New York Academy (Laryngology and Rhinology Section) by Dr. F. J. Quindon (*Am. Med.-Surg. Bulletin*). The cutting end of the forceps was in the shape of a cone. The advantages claimed were: an easier manipulation; ease of introduction; the main feature, that of occupying a small space in the naso-pharynx.

A Naso-Manometer.

Dr. Jonathan Wright (*Am. Med.-Surg. Bulletin*), at a recent meeting of the Laryngological and Rhinological Section of the New York Academy of Medicine, presented his instrument for the measurement of nasal obstruction—a *naso-manometer*.

The apparatus has been successfully applied in the determination of various forms of nasal obstruction, and has been found a valuable aid to the correct diagnosis of this class of cases.

The apparatus consists of a graduated U-shaped tube, partially filled with colored liquid, connected to a small metal tube by a length of rubber tubing. The small metal tube is placed to the patient's nostril, and the patient directed to inspire. By comparing the varying height of fluctuation of the liquid during inspiration the potency of the two nasal canals can be compared.

By aid of this manometer it is also possible to determine and establish a relative standard for normal respiration, which may be of great service in examinations of the nose and an aid in detecting nasal obstruction.

The naso-manometer can be attached to the wall or placed on the instrument table.

BOOK REVIEWS.

Acoustic Exercises in Deaf-Mutism, and in the Deafness of the Aged.—By Professor Victor Urbantschitsch, of the University of Vienna. Published by Urban and Schwarzenberg, Vienna.

In this excellent volume Urbantschitsch records his many experiences and experiments with a systematic acoustic gymnastics, as conducted in the Oberdæbling Institute for Deaf-Mutes, the Vienna Polyclinic, private practice, etc.

Acoustic gymnastics, methodically conducted, is the basis of the work. By acoustic gymnastics is meant the developing of the latent auditory nerve by aid of the human voice, systematically applied, with the result that the hearing capacity in many individuals is gradually stimulated and improved; in other words, the awakening to activity of one special sense by the patient and direct use of another; a system of vocal training of the auditory nerve.

Space does not permit even a brief review of this method, as employed by Prof. Urbantschitsch; to obtain a detailed knowledge of the matter, the reader is referred to the study of the volume, also to an English translation of an earlier publication of Urbantschitsch, by Dr. M. A. Goldstein, which appeared in the *Archives of Otology*, Vol. xxiv., No. 1, 1894.

Too much cannot be said of the decided beneficial effects derived from the application of this method in the training of deaf mutes; and even in such cases where the improvement in hearing has not been marked, the favorable influence on the disposition, the mental condition, and improvement in articulation and pronunciation has been noted.

Every aurist should give this "acoustic gymnastics" method a trial when opportunity presents itself.

Autoscopy of Larynx and Trachea (dispensing with laryngeal mirror). — By Dr. Alfred Kirstein, of Berlin. Published by Oscar Cablenz, Berlin, 1896.

Autoscopy is a new method of examination of the laryngeal area by the aid of an ingenious apparatus devised by the author. In a 40-page brochure, Kirstein explains the construction, manner of application and advantages of his new autoscope. Its applicability for practical work is now being tested by several prominent American laryngologists.

Diphtheria and Its Associates.—By Lennox Browne, F.R.C.S., Edin. Illustrated by the author. 8vo., pp. 272. [London: Bailliere, Tindall & Cox. Philadelphia: J. B. Lippincott Co. 1895. Price, $5.00.

It is seldom that a scientific work that is intended to become standard is brought so thoroughly "up to date" as the volume under consideration. The first 226 pages are devoted to the thorough and systematic consideration of diphtheria and its associates, according to what the author aptly terms the "well-established methods of the classical treatment of diphtheria." This portion of the work is schol-

arly and exhaustive, and is thoroughly illustrated. The reproduction of microscopical slides is excellent, and the color work artistic. The Appendix, consisting of 37 pages, is entirely devoted to the serum treatment of diphtheria. The author deprecates the blind acceptance of this new idea of treatment. While startling reports have been made from many continental hospitals regarding the great decrease in the death rate, it is noted that in these hospitals the death rate, under the use of the serum treatment, is just about the same as in the London hospitals under the old-style treatment. Every physician who is called upon to treat the disease should by all means procure a copy of the work. It is the best we have ever had the pleasure of reading.

BOOKS AND PAMPHLETS RECEIVED.

Pharyngeal Tuberculosis. By Robert Levy, M.D., Denver, Colo. Reprint *Denver Med. Times* for June, 1896.

The Treatment of Laryngeal Tuberculosis by the Application and Submucous Injection of Creosote. By Walter F. Chappell, M.D., M.R.C.S., Eng. Reprint, *N. Y. Med. Jour.*, 1895.

A New Semi-fluid Product, Oleo-Stearate of Zinc. By Walter F. Chappell, M.D., M.R.C.S., Eng. Reprint, *N. Y. Med. Jour.*, 1896.

Observations on the Creosote Treatment of Tuberculosis of the Upper Air-Passages. By Walter F. Chappell, M.D., M.R.C.S., Eng. Reprint, *N. Y. Med. Jour.*, 1896.

Some Interesting Laryngeal Neoplasms. By Walter F. Chappell, M.D., M.R.C.S., Eng. Reprint, *Manhattan Eye and Ear Hospital Reports*, 1895.

We are in receipt of the Sixth Annual Report of the New Orleans Eye, Ear, Nose and Throat Hospital, and congratulate Dr. de Roaldes and his efficient staff on their continued success with this excellent institution. Nearly 3000 cases were treated in the nose, throat and ear department in the past year. A special feature of the report is a well-arranged, classified, tabulated report of cases treated.

Diseases of the Accessory and Nasal Cavities. By J. A. Stucky, M.D., Louisville, Ky. Reprint from the *Am. Practitioner and News*, June 27th, 1896.

NEWS ITEMS.

Professor Klebs.

America, and particularly Chicago, should be congratulated on the valuable acquisition to the American medical fraternity by the arrival of Professor Edwin Klebs, the distinguished German pathologist.

Professor Klebs has been elected to the chair of pathology and bacteriology in the Post-Graduate Medical School and Hospital of Chicago, and we are certain that the efforts of this eminent pathological authority of the German universities, and of Klebs-Löffler bacillus fame, will be crowned with future success.

Death of Dr. Samuel Sexton.

Died, July 11th, Dr. Samuel Sexton, New York; æt. 63. With the death of Samuel Sexton, America has lost one of its most energetic and representative otologists. For the past twenty-five years, Sexton has been eminent as an excellent teacher, a prominent clinician and successful aurist. He was an indefatigable worker in otological science and was a leader of the radical school. He distinguished himself as a writer, and has made some valuable contributions to otological literature. His principal work, "The Ear, and Its Diseases," published in 1888, is an American standard in otology.

Death of Dr. Pipino.

On the evening of June 3d, Dr. W. C. Pipino, of Des Moines, came very suddenly and unexpectedly to his death. While riding on horseback in the north part of the city his horse threw him with such violence that his skull was very badly fractured. A number of his medical friends were soon called to his assistance, but his injury was too severe to admit of hope, and he lived but a few hours. Dr. Pipino had become one of the best known eye and ear authorities of the West. He was a member of various medical societies, and he was a liberal contributor to the medical press. He was born in Baltimore, Md., and once practiced medicine in Mexico, Mo. He was a Thirty-second Degree Scottish Rite Mason and an Elk. He leaves a widow, a son, a daughter, and a host of friends, to all of whom his death causes profoundest sorrow.

A Bacteriological Department.

The Central London Throat, Ear and Nose Hospital has added a bacteriological department, in charge of George C. Reid, M.R.C.S.

Heidelberg's Chair of Otology.

Dr. Passow, assistant to Professor Trautmann's otological clinic in the University of Berlin, has been appointed Professor of Otology in the University of Heidelberg, to succeed the late Professor Moos.

Western Ophthalmological, Otological, Laryngological and Rhinological Association.

This society meets in St. Louis, April, 1897. Dr. Adolf Alt, president, St. Louis; Dr. Hal. Foster, secretary, Kansas City, Mo.

The Mississippi Valley Medical Association.

The Mississippi Valley Medical Association will meet September 15, 16, 17, 18, in order to permit the members and their families to take the opportunity accorded by this change to make a pleasant tour through the Yellowstone Park. Favorable terms for this additional trip will be made; and it is desired that all parties desiring to avail themselves of the excellent opportunity to visit this wonderful region send their names to Dr. C. A. Wheaton, Chairman of the Committee of Arrangements, St. Paul, at as early a date as possible.

The American Electro-Therapeutic Association.

The Sixth Annual Meeting of the American Electro-Therapeutic Association will be held September 29th and 30th, and October 1st, 1896, in the Studio Building, Boston, Mass.

The Brunswick Hotel, corner Boylston and Clarendon Streets, will be the headquarters of the Association during the meeting. Terms reduced to four dollars per day, for Fellows and their friends. The Copley Square Hotel, corner Exeter Street and Huntington Avenue, terms reduced to three dollars per day, is also located in close proximity. For rooms, etc., apply either to the proprietors, or to Dr. W. H. White, No. 222 Marlborough Street, Boston, Mass., who, as the Vice-Chairman of the Committee of Arrangements, will reserve rooms. Prof. A. Dolbear, Tufts' College, Mass., is the Chairman of the Committee of Arrangements; Dr. Frederick H. Morse, Melrose, Mass., is the Chairman of the Committee of Exhibition. The next annual meeting promises to be a greater success than any former one. Great interest is shown in all quarters.

ANNOUNCEMENT.

After due deliberation, and correspondence with prominent colleagues in every representative medical center, we have decided to publish THE LARYNGOSCOPE—a 64-page monthly journal, devoted to the Diseases of the Nose, Throat and Ear, for General Practitioners and Specialists.

We will endeavor to occupy a middle ground between the general and strictly special journals, and interest that large body of progressive physicians to be found in every town and city who, from time to time, are called upon to treat diseases of the nose, throat and ear.

The presentation of THE LARYNGOSCOPE is an innovation in medical literature, as there is no monthly journal representing these specialties published in America.

Contributions to the Original Department of THE LARYNGOSCOPE will be of such a nature as will appeal to both the general practitioner and specialist.

Our Editorial Staff represents each section of the country, and we will be thus enabled to give our readers the special sentiments and gleanings, society proceedings, and clinical progress from every representative medical center.

A staff of Foreign Editors will, by their correspondence, keep our subscribers posted as to the special advances made in their respective countries in the field which we intend to cover.

In this progressive era of "specialization" in medicine, and the ever-increasing demand thus made on the profession for more accurate and delicate work, the necessity of such a journal as we desire to make THE LARYNGOSCOPE will soon be felt; and we shall endeavor by every means in our power to make it an influential factor in medical journalism, and a worthy champion of the field of work which it represents.

In order to place the journal within the reach of all, the subscription price has been placed at $2.00 per year.

We respectfully request the active support of the medical profession.

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Professor CASIMIRO MANESSEI. (Pres. of the Italian Section of the International Medical Congress of Paris.)
Dr. G. B. DANTONE, of Rome.
Dr. AUG. RITTER VON REUSS. (Professor of Ophthalmology, Royal and Imperial University, Vienna.)
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